Chapter II: Alternatives

This environmental assessment addresses actions of the Yosemite Lodge Area Redevelopment that were approved in the *Yosemite Valley Plan* (NPS 2000a) pertaining to Yosemite Lodge, Camp 4, and Northside Drive in the vicinity of Yosemite Lodge. As such, the range of alternatives considered in this environmental assessment was directed by the *Yosemite Valley Plan*. This environmental assessment also analyzes development of the Indian Cultural Center, proposed to be developed by the National Park Service in partnership with the American Indian Council of Mariposa County (aka Southern Sierra Miwuk Nation). The Indian Cultural Center was identified in the *General Management Plan* (NPS 1980) and analyzed as a cumulative project in the *Yosemite Valley Plan*.

The *Yosemite Valley Plan* evaluated a reasonable range of alternatives for Yosemite Lodge, Camp 4, and Northside Drive in the vicinity of Yosemite Lodge, and its Record of Decision approved actions to proceed. This environmental assessment identifies and analyzes a range of alternatives that are consistent with the *Yosemite Valley Plan* and the purpose of and need for the action, as described in Chapter I, Purpose and Need.

Overview of the Alternatives

This section presents three alternatives for the Yosemite Lodge Area Redevelopment. Under Alternative 1 (No Action), the project area would remain unchanged, except for normal maintenance and repair (see figure II-1). Alternative 2 (see figure II-2) and Alternative 3 (see figure II-3) both would implement approved *Yosemite Valley Plan* actions for the Yosemite Lodge Area Redevelopment, including providing 251 lodging units and overnight parking spaces at Yosemite Lodge, providing 65 campsites and 195 parking spaces at Camp 4, relocating Northside Drive south of the Lodge, and converting existing Northside Drive to a multi-use paved trail.[1] Consistent with the *General Management Plan,* under both action alternatives, the National Park Service in partnership with the American Indian Council of Mariposa County (aka Southern Sierra Miwuk Nation) would develop an Indian Cultural Center at the site of the last-occupied Indian village in Yosemite Valley, west of Camp 4. As described in the alternatives descriptions below, Alternative 2 and Alternative 3 differ in several key respects:

- Layout of lodging units and Yosemite Lodge guest parking
- Size and number of viewing plazas provided at the Lodge
- Location and size of the Lodge amphitheater
- Location of the bicycle rental stand and propane tank farm on the Lodge site
- Provision of a free-standing climbing display building at Camp 4 versus a changeable interior interpretive display space at the Lodge
- Shared versus individual fire rings for campsites at Camp 4
- Provision of a common cooking pavilion and storage lockers at Camp 4
- Distribution of Camp 4 restroom and shower facilities

[1] With the exception of figures II-1, II-2, and II-3, alternative figures follow the text discussion of the alternatives to improve readability of the environmental assessment.

- Paved versus unpaved Camp 4 parking lot
- Location of the stock trail on the western edge of Camp 4
- Linear feet of trails, acres of restoration, number of trees removed, acres of wetland disturbance, and area of pervious versus impervious surfaces
- Construction phasing activities

Alternative 1 (No Action)

Under Alternative 1, the existing conditions in the project area would be maintained as described in Chapter III, Affected Environment (see figure II-1). Alternative 1 provides a baseline from which to compare Alternatives 2 and 3, evaluate the magnitude of proposed changes, and measure the environmental effects of those changes. This no action concept follows the guidance of the Council on Environmental Quality, which describes the No Action Alternative as representing no change from the existing management direction or level of management intensity. The baseline conditions for the Yosemite Lodge Area Redevelopment are described below.

Yosemite Lodge

Yosemite Lodge Character

Yosemite Lodge would retain its existing motel-like lodge experience. There would be no changes in circulation, facility locations, or number of lodging units. Yosemite Lodge would continue to provide the same activities and services as at present.

Yosemite Lodge would continue to include an assembly of one- and two-story buildings concentrated around the registration building and other common facilities. The Yosemite Lodge common facilities are tightly organized around a series of internal open spaces, and the lodging buildings are more loosely placed around the site. Parking lots serving Yosemite Lodge line the roadway that provides access to the site, becoming part of the visual experience for visitors to the area.

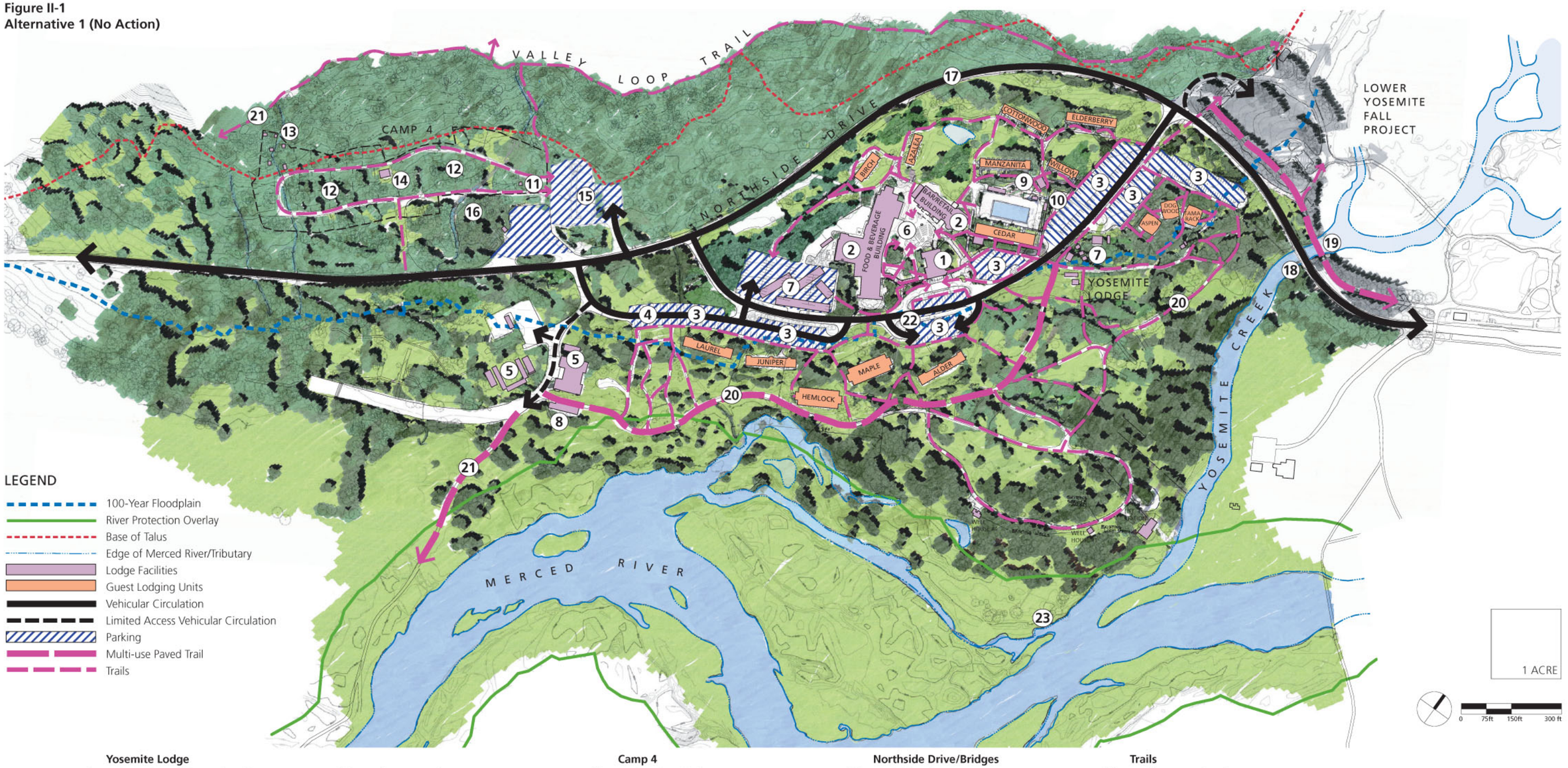
Registration Building

The existing lobby registration building would be retained (see item #1 on figure II-1) and would continue to have one fireplace. The semicircular entry drive providing temporary parking for registering guests and pick-up/drop-off space for tour buses and shuttle buses would be maintained in its current configuration and condition. Pedestrian, vehicle, tour bus, and shuttle bus circulation routes would continue to be in conflict at the registration entry roadway.

Lodging Units

A total of 245 midscale motel and cottage rooms would be retained (see figure II-1), including 181 motel rooms in 8 buildings (including Cedar, Elderberry, Juniper, Manzanita, Alder, Hemlock, Maple, and Laurel) and 64 cottage rooms in 7 buildings (including Aspen, Azalea, Cottonwood, Dogwood, Tamarack, Birch, and Willow). The January 1997 flood damaged four motel structures (Maple, Juniper, Alder, and Hemlock) at Yosemite Lodge. Interim repairs were made to these structures, and they are still in use. These structures would receive normal maintenance and repair, but no significant rehabilitation. The exteriors of the lodging buildings would not be modified.

Figure II-1
Alternative 1 (No Action)



Yosemite Lodge

1 Registration Building and Parking
2 Lodge Common Facilities
3 Lodge Guest Parking
4 Overnight Bus Parking
5 Housekeeping / Maintenance / Storage
6 Outdoor Amphitheater
7 Employee Housing
8 Wellness Center
9 Post Office
10 Bicycle Rental

Camp 4

11 Registration Kiosk
12 Camp 4 Campsites
13 Search and Rescue Sites
14 Camp 4 Restroom
15 Camp 4 Parking
16 Electrical Substation

Northside Drive/Bridges

17 Northside Drive
18 Yosemite Creek Bridge
19 Yosemite Creek Pedestrian/Bicycle Bridge

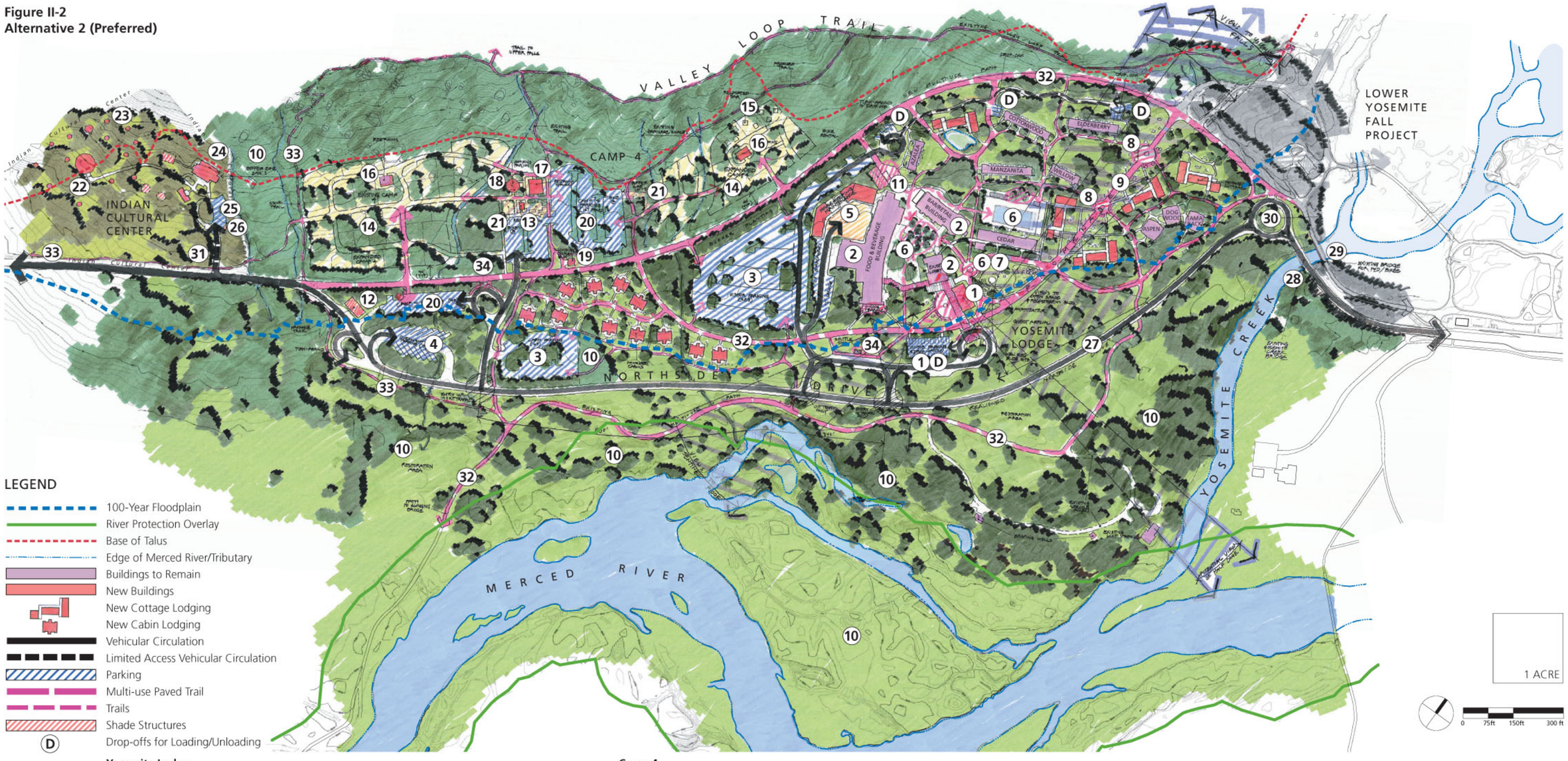
Trails

20 Multi-use Paved Trail
21 Stock Trail

22 **Shuttle Bus Stop**
23 **Diversion Dam**

SOURCE: National Park Service

Figure II-2
Alternative 2 (Preferred)



LEGEND

- 100-Year Floodplain
- River Protection Overlay
- Base of Talus
- Edge of Merced River/Tributary
- Buildings to Remain
- New Buildings
- New Cottage Lodging
- New Cabin Lodging
- Vehicular Circulation
- Limited Access Vehicular Circulation
- Parking
- Multi-use Paved Trail
- Trails
- Shade Structures
- (D) Drop-offs for Loading/Unloading

Yosemite Lodge

1 Registration Building and Parking
2 Lodge Common Facilities
3 Lodge Guest Parking
4 Overnight Bus Parking
5 Housekeeping / Maintenance / Storage
6 Common Gathering Areas
7 Outdoor Amphitheater
8 Viewing Plazas (2)
9 Promenade
10 Restoration Area
11 Bicycle Rental
12 Propane Tank Facility

Camp 4

13 Registration Kiosk
14 Camp 4 Campsites
15 Search and Rescue Sites
16 Camp 4 Restroom/Storage Lockers
17 Camp 4 Restroom/Shower/Storage Lockers
18 Camp 4 Pavilion
19 Climbing Display Building
20 Camp 4 Parking (Paved)
21 Bicycle Storage (Dispersed)

Indian Cultural Center

22 Roundhouse/Sweatlodge
23 Umachas (15)
24 Community Building
25 ICC Parking
26 Propane Tank

Northside Drive/Bridges

27 Realigned Northside Drive
28 Yosemite Creek Bridge
29 Yosemite Creek Pedestrian/Bicycle Bridge
30 Roundabout
31 Limited Access Connection

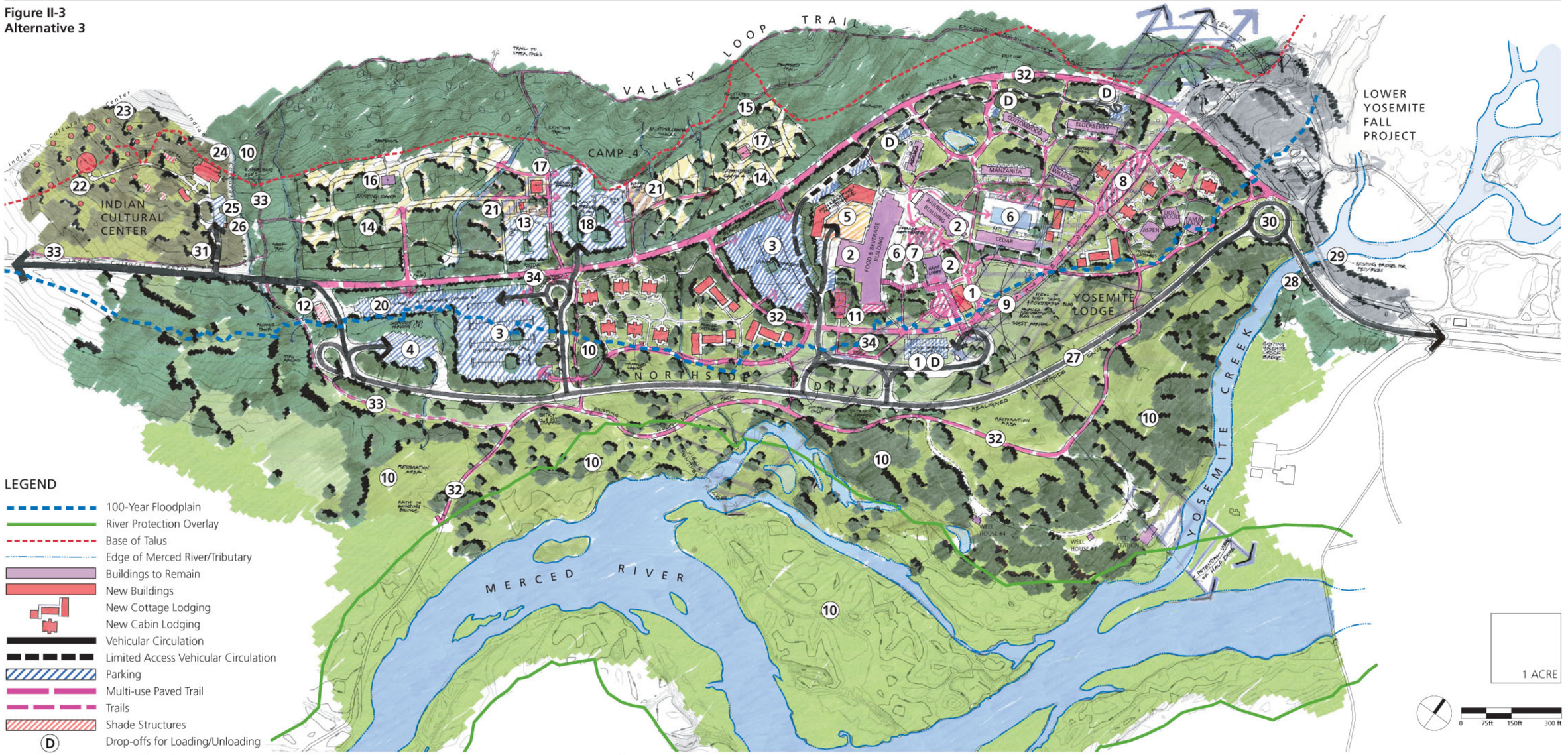
Trails

32 Multi-use Paved Trail
33 Stock Trail
34 **Shuttle Bus Stop**

SOURCE: National Park Service, and Sasaki Associates Inc.

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

Figure II-3
Alternative 3



LEGEND

- 100-Year Floodplain
- River Protection Overlay
- Base of Talus
- Edge of Merced River/Tributary
- Buildings to Remain
- New Buildings
- New Cottage Lodging
- New Cabin Lodging
- Vehicular Circulation
- Limited Access Vehicular Circulation
- Parking
- Multi-use Paved Trail
- Trails
- Shade Structures
- (D) Drop-offs for Loading/Unloading

Yosemite Lodge

1 Registration Building and Parking
2 Lodge Common Facilities
3 Lodge Guest Parking
4 Overnight Bus Parking
5 Housekeeping / Maintenance / Storage
6 Common Gathering Areas
7 Outdoor Amphitheater
8 Viewing Plaza
9 Promenade
10 Restoration Area
11 Bicycle Rental
12 Propane Tank Facility

Camp 4

13 Registration Kiosk
14 Camp 4 Campsites
15 Search and Rescue Sites
16 Camp 4 Restroom
17 Camp 4 Restroom/Shower
18 Camp 4 Parking (Unpaved)
19 Not Applicable
20 Camp 4 Parking (Paved)
21 Bicycle Storage

Indian Cultural Center

22 Roundhouse/Sweatlodge
23 Umachas (15)
24 Community Building
25 ICC Parking
26 Propane Tank

Northside Drive/Bridges

27 Realigned Northside Drive
28 Yosemite Creek Bridge
29 Yosemite Creek Pedestrian/Bicycle Bridge
30 Roundabout
31 Limited Access Connection

Trails

32 Multi-use Paved Trail
33 Stock Trail
34 **Shuttle Bus Stop**

SOURCE: National Park Service, and Sasaki Associates Inc.

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

Lodge Common Facilities

Food and retail services at Yosemite Lodge would remain as at present, with periodic facility upgrades within the existing footprint (see item #2 on figure II-1). The interconnected buildings at the center of Yosemite Lodge would provide visitor food and retail services. The three restaurants (including the Food Court, Mountain Room, and the currently closed Garden Terrace), Nature Shop, main gift and grocery store, and the Mountain Room Bar would remain in their current locations. The Cliff Room, used primarily for evening interpretive programs, group meetings, seminars, and other special functions, would continue to be undersized for these functions. The Lodge common facilities would continue to have two fireplaces: one at the Mountain Room Lounge and one at the Mountain Room Restaurant. The snack bar located at the pool would remain in its current location and condition. Approximately 200 employees would continue to operate Yosemite Lodge.

Lodge Guest Parking

The existing Yosemite Lodge parking areas would remain in their current locations and condition (see item #3 on figure II-1). A total of 245 overnight parking spaces and 219 day-visitor parking spaces would continue to be provided at Yosemite Lodge. The 219 day-visitor parking spaces would continue to include parking for temporary registration, employees, maintenance, and disabled visitors. Parking conditions at Yosemite Lodge would continue to be congested.

Typical Distance to Rooms. Under Alternative 1, the typical distance from a parking lot to a lodging unit would be approximately 150 to 600 linear feet, as measured from the central point in a parking lot to a central area within a cluster of lodging units. The extreme distance from a parking lot to a room would be 2,040 linear feet. The extreme distance is the distance between the outermost space in a parking lot and the outermost room in the Lodge unit farthest from the parking lot.

Bus Parking

A total of 30 bus parking spaces would continue to be provided in their current location and condition, including 15 overnight bus parking spaces (see item #4 on figure II-1). Approximately 30 day-visitor buses would continue to be accommodated at Yosemite Lodge. The day-visitor buses would continue to share parking spaces with overnight buses. A 15-minute bus idling period would continue to be enforced.

Housekeeping, Maintenance, and Storage

Existing housekeeping and maintenance facilities at the Lodge would remain in their current capacity and location (see item #5 on figure II-1). The housekeeping and maintenance facility that was damaged by flooding in January 1997 and subsequently removed would not be replaced.

Common Gathering Areas

The amphitheater area and swimming pool at Yosemite Lodge would continue to be the primary common gathering areas. The swimming pool would remain in its current location and condition. The outdoor amphitheater would also remain in its current location and condition, accommodating approximately 150 to 200 individuals (see item #6 on figure II-1). The amphitheater would continue to be used primarily for evening interpretive programs and other special functions.

Pedestrian and Bicycle Circulation

The pedestrian and bicycle paths at Yosemite Lodge would remain in their current locations and condition (see figure II-1). Circulation at Yosemite Lodge would continue to have a vehicular focus and would not be pedestrian-friendly. Pedestrian pathways at Yosemite Lodge would continue to be haphazardly organized, making wayfinding at the Lodge difficult for visitors. Pedestrian paths in the southern area of the site that connected lodging units destroyed by the 1997 flood would remain in place.

Employee Housing

The temporary, modular housing units (82 beds) that were established to offset housing lost during the January 1997 flood would remain at their current locations. The Yosemite Lodge cabins (8 beds) would continue to be used for employee housing (see item #7 on figure II-1).

Wellness Center

The Wellness Center, which provides health and exercise facilities for park employees, would remain in the Merced River floodplain in its current location and condition (see item #8 on figure II-1).

Post Office

The post office at the Lodge would be retained in its current location and condition (see item #9 on figure II-1).

Bicycle Rental

The bicycle rental stand would remain in its current location and condition (see item #10 on figure II-1).

Camp 4

Registration Kiosk

Existing Camp 4 common facilities would continue to include one registration and information kiosk (see item #11 on figure II-1). The existing facility would continue to be undersized for the necessary function and would not include a formal notice posting area or a roof overhang to protect visitors from inclement weather while registering.

Camp 4 Campsites

The existing 37 walk-in campsites would be retained at Camp 4 (see item #12 on figure II-1) and would continue to have one fire ring per campsite.

Search and Rescue Sites

There would be no changes to the search and rescue sites, located at the western side of Camp 4, which would continue to include nine tent cabins for nine search and rescue personnel (see item #13 on figure II-1).

Common Facilities

Existing Camp 4 common facilities would continue to include one restroom building with one outdoor sink to wash dishes and laundry (see item #14 on figure II-1). The restroom facility would remain in its current location with a total of 14 toilets. The restroom would continue to be

undersized for facility demand, with queues forming during busy periods. Although routine maintenance activities would continue, restroom conditions would remain somewhat shabby due to the age of the facility and heavy visitor use.

Camp 4 Parking

The existing Camp 4 parking area would remain in its current location and condition (see item #15 on figure II-1). The parking area would continue to be unpaved, accommodate up to 111 vehicles, and provide an area for campers and climbers to meet, exchange information, and set up gear.

Electrical Substation

The electrical substation located at Camp 4 would remain in its current location and condition (see item #16 on figure II-1). The electrical substation has not been in operation since mid-1990.

Northside Drive and Bridges

Northside Drive

Northside Drive would remain a two-way road from Yosemite Village to Yosemite Lodge, and one-way westbound from Yosemite Lodge to Pohono Bridge (see item #17 on figure II-1). Pedestrian and bicycle crossings between Yosemite Lodge and the Lower Yosemite Fall area would continue to be hazardous to pedestrians and bicyclists, interrupting the flow of traffic along Northside Drive in the vicinity of Yosemite Lodge.

Yosemite Creek Bridge

Historic Yosemite Creek Bridge would remain in its current location and condition in the Yosemite Lodge area (see item #18 on figure II-1).

Yosemite Creek Pedestrian/Bicycle Bridge

The Yosemite Creek Pedestrian/Bicycle Bridge would remain in its current location and condition, providing a bridge crossing for the pedestrian pathway to Lower Yosemite Fall across Yosemite Creek (see item #19 on figure II-1).

Trails

All trails in the project area would remain in their current condition and locations, including routine trail maintenance. Alternative 1 would continue to provide 26,150 linear feet of trails, including 800 linear feet of multi-use paved trails, 23,100 linear feet of pedestrian trails, and 2,250 linear feet of hiker/stock trails (see figure II-4).

Multi-use paved trails link Valleywide destinations; these trails are shared by pedestrians and bicyclists and average 12 feet to 20 feet in width. Multi-use paved trails provide limited use to service vehicles, and some segments provide emergency access. Pedestrian trails are used by pedestrians only, may be either paved or unpaved, and range from 4 to 12 feet in width. The narrower pedestrian trails (i.e., 4 to 6 feet in width) tend to be unpaved. Hiker/stock trails are unpaved trails shared by stock (e.g., horses) and pedestrians and range between 4 to 6 feet in width.

The multi-use paved trail at Yosemite Lodge would remain discontinuous with other valley trails (see item #20 on figure II-1). Stock users would continue to share trails with hikers in the project area. The stock trail at the western end of the site would remain unconnected to other trails, making wayfinding difficult (see item #21 on figure II-1).

Access to the Valley Loop Trail and Upper Yosemite Fall Trail north of Camp 4 would remain in its current location and condition. The trailhead for the Valley Loop/Yosemite Falls trail system would remain difficult to locate from the Camp 4 parking area.

Shuttle Bus Stop

The shuttle bus stop would remain at its current location near the registration building at Yosemite Lodge (see item #22 on figure II-1). There would be no modifications or improvements to the shuttle bus stop associated with this alternative.

Utilities

There would be no modifications or improvements to existing site utilities associated with this alternative, and no changes to the existing water, sewer, communications, or electricity lines. There would continue to be 18 culverts on site.

Under Alternative 1, remediation of 2 leaking underground tanks at the site of the former service station next to Camp 4 and a former staff dormitory at the western end of Yosemite Lodge would continue.

Lighting

There would be no modifications or improvements to site or pathway lighting associated with this alternative.

Restoration

No restoration activities would occur under this alternative. The diversion dam on Yosemite Creek (see item #23 on figure II-1) would remain in place, continuing to block overland flow across the Merced River floodplain south of Yosemite Lodge.

Revegetation

There would be no modifications or improvements to site landscaping associated with this alternative. Historic view corridors through the project area would not be maintained through selective trimming of trees and tree removal. Vegetation would continue to grow in these view corridors, thus potentially obscuring historic views.

Tree Management

Under Alternative 1, there would be a total of approximately 4,662 trees within the project area. Appendix B, Tree Management, provides a breakdown of the trees under Alternative 1 by tree type and size class. There would be no modifications to trees on the project site.

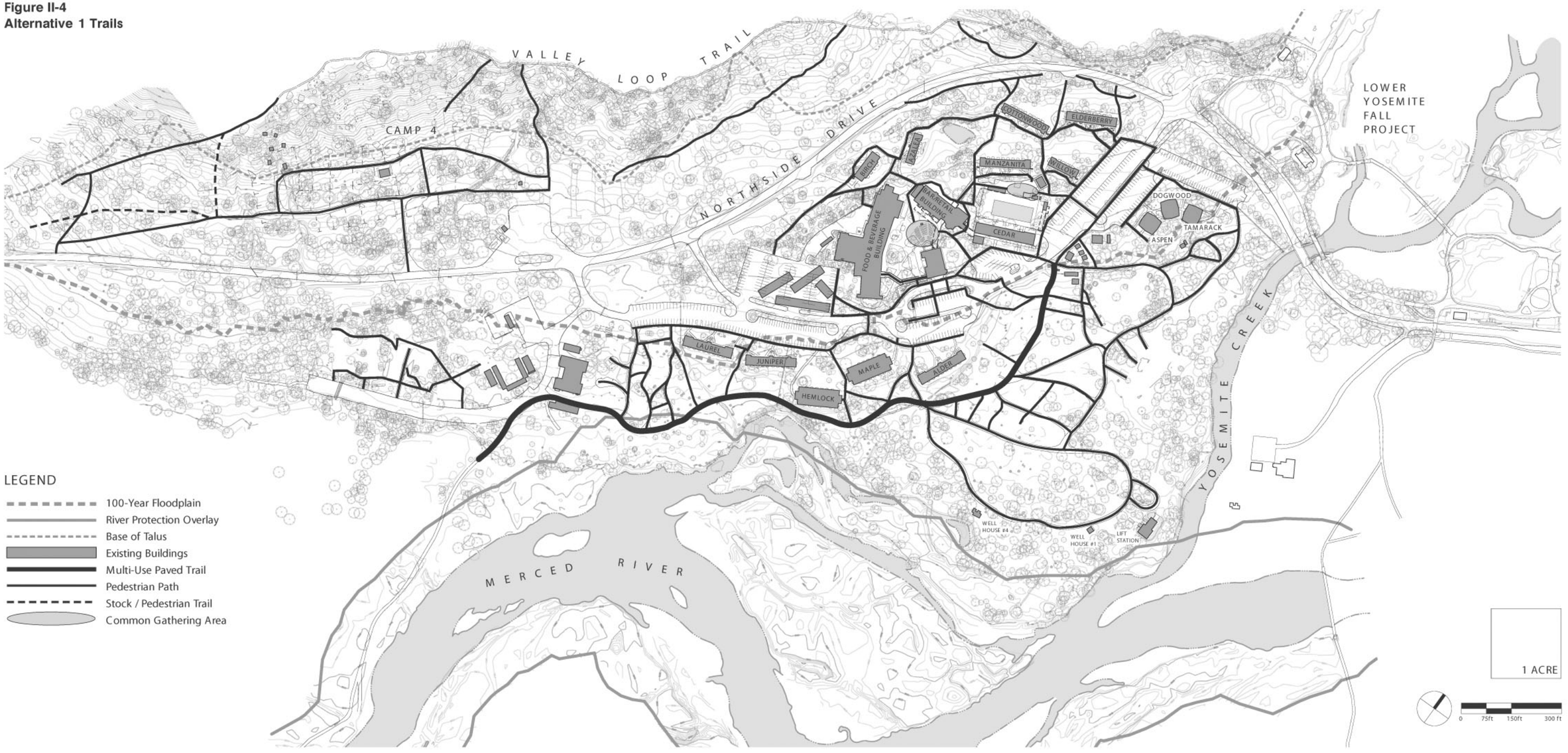
Wetlands

Under Alternative 1, there would be approximately 16.28 acres of waters of the U.S. jurisdictional wetlands. These wetlands are also considered Cowardin wetlands (see wetland discussion in Chapter III, Affected Environment, and glossary definitions in Chapter VII, References).

Pervious and Impervious Surfaces

Pervious surfaces allow moisture penetration into the ground and include natural areas and restored/revegetated areas. Semipervious surfaces allow partial penetration by moisture and include decomposed granite paving, dirt trails, and campgrounds. Impervious surfaces are incapable of being penetrated by moisture and include building footprints, paved parking areas, roads, and paved pathways. Impervious paving on the project site includes asphalt, concrete, and mortared masonry. Under Alternative 1 within the project area, approximately 3,651,500 square feet would be pervious surfaces, 278,600 square feet would be semipervious surfaces, and 738,500 square feet would be impervious surfaces. Within the 100-year floodplain, approximately 93,500 square feet would be semipervious surfaces and 151,600 square feet would be impervious surfaces.

Figure II-4
Alternative 1 Trails



SOURCE: National Park Service and Sasaki Associates Inc .

Elements Common to Both Action Alternatives

The following elements are common to Alternative 2 and Alternative 3. These alternative elements are consistent with the *Yosemite Valley Plan*.

Yosemite Lodge

Yosemite Lodge Character

The character of Yosemite Lodge would be changed from a motel-type experience to one that is unique to a national park lodge and Yosemite National Park. This would be accomplished through the replacement of some motel buildings with smaller cabin and cottage units, and the design of facilities to enhance connections between interior spaces and the outdoors. The Lodge would be redesigned to bring the Yosemite Falls experience into the Lodge site.

Registration Building

A new registration building would be constructed south of the existing registration building site (see item #1 on figures II-2 and II-3). The new registration building would be oriented to enhance guests' arrival experience. New registration building program elements would include: a front desk manager's office, front desk stations, public telephones, restrooms, and 15-seat public lounge area.

The existing registration building would be adaptively reused for administrative and interpretive functions, including a public information area, business center (telephones, bank machine, and mail drop-off), guest lounge area, public restrooms, and Valley tour reservation center.

The vehicular, bus, and pedestrian approaches would be redesigned to improve traffic flow and pedestrian safety at the new registration building. The entry to Yosemite Lodge near the registration building would include separate roadways for entering and exiting vehicles. Upon entering the Lodge site, registering guests and tour bus traffic would be separated from shuttle bus, maintenance vehicle, and Lodge guest traffic seeking permanent parking. On the approach to the registration building, bus turnouts would be provided to further reduce vehicle and bus conflicts. Wayfinding to the registration building would be improved through the provision of directional signs.

Lodge Common Facilities

The Yosemite Lodge common facilities would remain in their current locations (see item #2 on figures II-2 and II-3), and the three restaurant facilities and Nature Shop would not change under the Yosemite Lodge Area Redevelopment action alternatives. The Mountain Room Bar would be redesigned into a public lobby and lounge space. The main gift store at Yosemite Lodge would be permanently reduced to its winter size. The Cliff Room would be expanded into the interior space vacated by the gift store. The interior function of the Cliff Room would be improved and would continue to be used primarily for evening interpretive programs, group meetings, seminars, and other special functions.

The post office building would be removed, and the some of the post office functions, such as mail delivery boxes, would be consolidated at Curry Village. As mentioned above, the business center at the existing registration building would include a mail drop-off area. The Yosemite Lodge snack bar near the swimming pool would remain in its existing location and condition. A sufficient number of concessioner staff would be employed to operate Yosemite Lodge. It is expected that the number of employees required would increase somewhat over existing staffing levels.

Bus Parking

Permanent parking for 15 overnight tour buses would be provided at the western end of the Yosemite Lodge site (see item #4 on figures II-2 and II-3). As discussed under Construction Phasing, below, interim parking would be provided for up to 30 day-visitor buses at the Lodge site on a temporary basis.

Housekeeping, Maintenance, and Storage

A new housekeeping/maintenance building would be constructed northwest of the Yosemite Lodge common facilities (see item #5 on figures II-2 and II-3) to replace the housekeeping and maintenance facilities that were damaged by flooding in 1997. The existing housekeeping/ maintenance building located at the western end of the Lodge site would be removed. In the new building, housekeeping, storage, maintenance, and associated management space would be consolidated. The new housekeeping/maintenance building would provide adequate space to accommodate proposed Lodge operations.

In addition to the storage provided at the new housekeeping/maintenance building, auxiliary linen storage units would be incorporated into the floor plans of the cottages. Free-standing linen storage buildings would be constructed at the cabins.

Promenade

A new major pedestrian promenade would be provided through the Lodge site (see item #9 on figures II-2 and II-3) and would form the central pedestrian corridor. The promenade would be oriented toward views of Yosemite Falls. Buildings along the promenade would be appropriately set back from the pedestrian corridor so as not to interfere with views of Yosemite Falls and other scenic features.

Employee Housing

The existing modular employee housing (82 beds) and employee cabins (8 beds) would be removed from the Yosemite Lodge site. The housing would be relocated consistent with the *Yosemite Valley Plan*. No new employee housing would be constructed at Yosemite Lodge. The existing employee Wellness Center would be relocated to Curry Village.

Refurbishment of Lodge Facilities

The exteriors of the existing structures would be refurbished to make the buildings consistent with the park's architectural guidelines for Yosemite Lodge public buildings and guest quarters. According to the architectural guidelines, buildings should harmonize with the surrounding landscape and should be placed in and among the trees or at the edges of meadows to preserve natural open spaces. The architectural style should make use of traditional National Park Service rustic and historic design elements. The setting for guest quarters should be more quiet and restful than that of the public buildings. All guest rooms should have an outdoor seating area, such as a covered porch, patio, or balcony. Visitors should have opportunities to experience and appreciate the natural surroundings. Wherever possible, guest quarters should be sited to take advantage of natural light and views.

Simple building forms should be used so as not to compete with the grandeur of the cliffs and the water falls behind them. Wood is the appropriate material for building facades. Vertical or horizontal board siding is recommended, typically rough-sawn. Exposed wood structural elements are recommended for building entrances, porches, and large public interior spaces.

Overscaled, square-edged, re-sawn timbers are recommended for the main structural elements. Colors of new buildings should be compatible with other buildings on the site as much as possible. If unpainted wood is used, the wood must be of an appropriate grade (western red cedar or redwood) and covered with a clear stain. Roofs should use relatively dark and nonreflective coverings in order to harmonize with the surroundings, both when viewed from the adjacent ground and from above. The windows of public buildings can be more generous in size than those of guest quarters. Larger windows in public buildings can provide greater access to views of surrounding scenery.

Camp 4

Registration Kiosk

A small historic cabin would be relocated from the Lodge site (west of Aspen) to serve as the Camp 4 registration kiosk (see item #13 on figures II-2 and II-3). The registration kiosk would accommodate two rangers and would include a small room for money counting, a window overhang to shelter the public, closed-circuit television to transmit National Park Service informational bulletins, and an exterior information posting area. The existing registration kiosk would be removed.

Search and Rescue Sites

A total of 3 campsites would be set aside for up to 16 search and rescue staff at Camp 4. The search and rescue sites would be relocated to the eastern end of Camp 4 (see item #15 on figures II-2 and II-3). A total of 8 tent cabins would be provided, with 2 beds per tent cabin. Individual lockable storage areas would be provided for search and rescue staff in the restroom building.

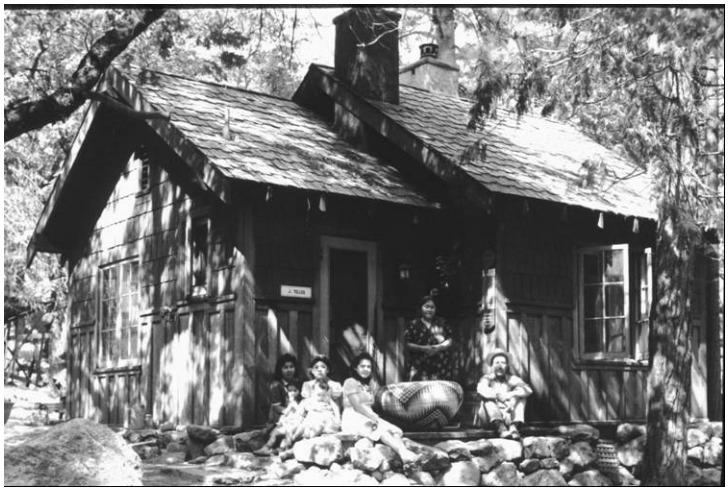
Electrical Substation

The existing electrical substation at Camp 4 would be removed. The facility removal would be conducted to ensure minimal disturbance to area resources.

Indian Cultural Center

Under Alternative 2, the National Park Service in partnership with the American Indian Council of Mariposa County (aka Southern Sierra Miwuk Nation) would develop the Indian Cultural Center at the site of the last-occupied American Indian village in Yosemite Valley and return to the site the last remaining cabin from the historic village for adaptive reuse.

The last remaining cabin from the historic Southern Sierra Miwuk village would be relocated to the site of the new Indian Cultural Center.



Because Indian people have inhabited the park for at least6,000 years, their continued use of the park is as important as preserving the wildlife and natural surroundings. The culture and traditions of the Miwok Indians and their ancestors enhance the meaning and sacred nature of Yosemite. Through an understanding of local Indian culture and traditions, the public would have an opportunity to gain a greater respect for the natural wonders of the park and their significance to a different culture (NPS 1980).

The Yosemite Indian people, through the American Indian Council of Mariposa County, would be encouraged to practice their traditional ceremonies at the Indian Cultural Center and to share their traditions, culture, and history with other park visitors. The center would provide a unique opportunity for visitors to become aware of the local Indian culture and would also help the Indian culture of Yosemite to remain alive. The atmosphere must be proper for traditional ceremonies and private enough to conduct sacred ceremonies in a dignified and traditional manner (NPS 1980). The American Indian Council of Mariposa County would be responsible for the construction and operation of the Indian Cultural Center and for conducting cultural and educational activities at the center.

Indian Cultural Center Facilities

The traditional village facilities would include a partly subterranean ceremonial roundhouse and a smaller sweatlodge (see item #22 on figures II-2 and II-3). Approximately 15 cedar-bark umachas (houses) would be scattered on the Indian Cultural Center site (see item #23 on figures II-2 and II-3). The traditional village would be closed to the public for privacy during ceremonial activities, but would be open to visitors at other times so that cultural traditions may be shared.

The Indian Cultural Center would include shade structures and a community building (see item #24 on figures II-2 and II-3), which would incorporate a common meeting room, kitchen, public restrooms, dressing room with showers for use by traditional dancers, and a storage area. The last extant structure from the original village (the former Westley and Alice Wilson home) would be relocated from its current nonhistoric location to the Indian Cultural Center and adaptively reused. The historic cabin would be relocated adjacent to the community building.

The site facilities would include construction of demonstration areas, shade structures (between 150 to 1,500 square feet), and an outdoor fire pit for exterior functions.

The site would be landscaped with plants used by American Indians for food, medicine, and other cultural purposes. Potential plant species include black oak, bracken fern, elderberry, manzanita, and mugwort. In addition, landscaping would provide visual screening for the site and would include such species as incense-cedar, red-osier dogwood, and spicebush.

Parking

The Indian Cultural Center would have an emergency access drive and up to five limited access and disabled-access parking spaces (see item #25 on figures II-2 and II-3). The paved drive and parking area would add approximately 7,600 square feet of new impervious surfaces in the project area. No visitor parking would be provided at the Indian Cultural Center site. Visitors would access the site on foot, or eventually from a shuttle bus stop. Special event parking for the Indian Cultural Center would be incorporated into the overall day-visitor parking for Yosemite Valley. The *Yosemite Valley Plan* discusses special shuttles for such events.

Northside Drive and Bridges

Northside Drive

Northside Drive would be rerouted around the south side of Yosemite Lodge (see item #27 on figures II-2 and II-3) to reduce conflicts between vehicles and pedestrians on Northside Drive and to provide safer pedestrian access between the Lodge and Lower Yosemite Fall. Realigned Northside Drive would continue to cross Yosemite Creek at the historic Yosemite Creek Bridge (see item #28 on figures II-2 and II-3). West of Yosemite Creek Bridge, Northside Drive would be routed through a roundabout (see item #30 on figures II-2 and II-3) to direct traffic south of the Lodge site. The roundabout would allow Northside Drive to flow without interruption. Realigned Northside Drive and the roundabout would add approximately 96,000 square feet of new impervious surfaces in the project area.

Realigned Northside Drive would be designed to follow the existing grading as closely as possible and would not include road embankments. Realigned Northside Drive would have a posted speed limit of 15 to 20 miles per hour in the project area. The posted speed limit for traffic on Yosemite Creek Bridge and the roundabout would be 15 miles per hour, and the speed limit for the remaining segment of realigned Northside Drive in the project area would be 20 miles per hour. Westbound traffic would continue to exit Yosemite Valley on Northside Drive. Westbound Northside Drive would become a one-way road after the last traffic turn-around at the Lodge site. On occasion, two-way, limited traffic would be permitted on Northside Drive to the Indian Cultural Center for special events. Realigned Northside Drive would be located in the 100-year floodplain of the Merced River.

Northside Drive would be rerouted to reduce conflicts between vehicles and pedestrians.

Existing Northside Drive between the roundabout and the western connection of realigned Northside Drive and existing Northside Drive would be converted from a roadway to a multi-use paved trail (see item #32 on figures II-2 and II-3). Appropriate emergency and service vehicle access would be provided on the multi-use paved trail. When necessary during special emergency conditions (such as large flood events), emergency and visitor traffic exiting Yosemite Valley would be rerouted on the multi-use paved trail from realigned Northside Drive to allow people to safely exit Yosemite Valley. The multi-use paved trail would be of sufficient width to operate in this capacity during flood events.

Bridges

There would be no changes to Yosemite Creek Bridge or the Yosemite Creek Pedestrian/Bicycle Bridge under either of the action alternatives.

Shuttle Bus Stop

Two shuttle bus stops would be provided; one would be located near the Yosemite Lodge registration building and the other would be near Camp 4 (see item #34 on figures II-2 and II-3). The new shuttle bus stops would include shelters. The existing shuttle bus stop would be removed.

Lighting

New exterior site lighting would be developed for the Yosemite Lodge Area Redevelopment project. Site lighting would follow criteria established by the Yosemite Valley Architectural Guidelines. Light emanating from buildings would be carefully controlled to minimize night sky pollution. Landscape lighting would be subtle, nonglare lighting based upon a pattern of spaced light pools. Lighting sources would be concealed. Appropriate emergency lighting would be provided for public health and safety purposes.

Revegetation

The site design would provide communal outdoor spaces that encourage visitors to experience the out-of-doors.

The project area would be revegetated based on principles described in the *Comprehensive Landscape and Revegetation Plan for Yosemite Lodge* (NPS 1999b). Existing and historic vegetation communities would be re-established and enhanced within the project area using an applied ecological approach to revegetation. Revegetation and landscaping at the site would emulate natural vegetation succession, native community structure, and species composition. The diversity of the physical setting has led to a variety of vegetation communities in the project area. Revegetation activities would rely on this historic distribution as a model to guide the replanting of native species in their ecologically appropriate locations. Salvage vegetation would be used to the extent possible. A landscape management plan with a monitoring component would be developed to ensure successful revegetation, maintain plantings, and replace unsuccessful plant materials. The National Park Service would maintain the landscape as vegetation matures to ensure the visibility of important views of the site. The site design would provide communal outdoor spaces that encourage visitors to experience the out-of-doors.

Mitigation Measures Common to All Action Alternatives

The National Park Service places a strong emphasis on avoidance, minimization, and mitigation of potential impacts. To help ensure that construction and/or operation of the proposed action are carried out in a manner that protects natural and cultural resources and the quality of the visitor experience, protective measures would be developed and implemented consistent with the guiding principles and commitments outlined in the Merced River Plan and the *Yosemite Valley Plan*. The mitigation measures common to Alternative 2 and Alternative 3 are included in Appendix C, Mitigation Measures Common to All Action Alternatives.

Alternative 2 (Preferred)

Yosemite Lodge

Lodging Units

At Yosemite Lodge, the number of lodging units would change from 245 existing midscale lodging units to 117 economy and 134 midscale units (a total of 251 lodging units). The National Park Service would provide an appropriate number of disabled-accessible lodging units consistent with federal accessibility standards.

The National Park Service would construct 5 two-story, 18-room cottages (a total of 90 lodging units) that would be of similar character to the former Pine and Oak Cottages. A total of 11 one-story, four-plex cabins (a total of 44 lodging units) would also be constructed. Architectural schematic floor plans of the cottages and cabins are shown in figure II-5. The 134 new lodging units would be designed to provide a greater connection to park resources than the existing motel units. The new lodging units would be placed to maximize views from the units and to minimize view obstruction of Yosemite Falls. Under Alternative 2, the one-story cabin units would be grouped together on the western side of the Lodge site, and the two-story cottage units would be interspersed with existing two-story lodging buildings on the eastern side of the Lodge site (see figure II-2).

A total of 117 existing lodging units would be retained at Yosemite Lodge and would be redesigned as discussed under the Refurbishment of Lodge Facilities section, above. Retained units include motel buildings (such as Cedar, Elderberry, and Manzanita) and cottage units (including Aspen, Azalea, Cottonwood, Dogwood, Tamarack, and Willow) (see figure II-2).

A total of 128 lodging units would be removed from the 100-year floodplain or for site design purposes. The National Park Service plans to remove five motel buildings, including Laurel, Juniper, Hemlock, Maple, and Alder, and the Birch cabin.

Lodge Guest Parking

The National Park Service would provide two types of guest parking spaces at Yosemite Lodge: standard parking spaces and loading/unloading parking spaces. A total of 361 standard parking spaces would be provided (see item #3 on figure II-2). Of the standard parking spaces, 251 parking spaces would be provided for overnight lodge guests, 20 parking spaces would be provided for early- and late-shift employees, and 15 parking spaces would be provided for maintenance vehicles. An additional 75 standard parking spaces would be provided as overlap parking for overnight guests, because some guests continue to park their cars at the Lodge and tour Yosemite Valley after they check out of their rooms. In addition to the 361 standard parking spaces, the National Park Service would provide an appropriate number of disabled-access parking spaces for lodge guests, consistent with federal accessibility standards, in locations appropriate for such parking spaces. At park entrance stations, the National Park Service would direct day visitors to Yosemite Valley day-visitor parking at Yosemite Village.

The National Park Service would also provide 40 loading/unloading parking spaces at Yosemite Lodge. The loading/unloading parking spaces would be temporary parking spaces for use by Yosemite Lodge guests while registering for their rooms or carrying personal belongings into their lodging units. The loading/unloading spaces near the lodging units are designed to make the

transport of personal belongings to lodging rooms more convenient and to encourage visitors to removal all items from their vehicles that could attract bears, consistent with the park's bear management guidelines. A total of 20 loading/unloading parking spaces would be provided for visitor registration (see item #1 on figure II-2). In addition, 20 loading/unloading parking spaces would be located near existing and new lodging units and in the registration parking area (see item D on figure II-2).

This alternative would feature guest parking in centralized locations on the Lodge site (see item #3 on figure II-2). Parking would be located near guest lodging areas, which would generally provide short walking distances from parking spaces to lodging units. The central guest parking lot would be used by guests staying in lodging units in the central Lodge area (i.e., existing lodging units and cottages). The smaller guest parking lot at the western end of the site would be used by guests staying in the cabins. The loading/unloading parking spaces would be designed to increase convenience to Lodge visitors. Some parking areas would be located in the floodplain (see figure II-2). The National Park Service would design the Yosemite Lodge interior roadway loop system to minimize unnecessary car traffic in parking lots and to limit the number of ingress/egress points onto realigned Northside Drive.

Typical Distance to Rooms. Under Alternative 2, the typical distance from a drop-off area to a lodging unit would be approximately 10 to 500 linear feet, as measured from the central point in the drop-off area to a central area within a cluster of lodging units. The typical distance from a parking lot to a lodging unit would be approximately 300 to 1,320 linear feet, as measured from the central point in a parking lot to a central area within a cluster of lodging units. The extreme distance from a parking lot to a room would be 1,830 linear feet. The extreme distance is the distance between the outermost space in a parking lot and the outermost room in the Lodge unit farthest from the parking lot.

Common Gathering Areas

Common gathering areas would be provided on the Yosemite Lodge site to promote the connection of visitors with the outdoors. Common gathering areas include small, informal outdoor seating areas, the existing amphitheater (which would be redesigned to include more naturally landscaped seating areas), a new amphitheater area (see below), and the Yosemite Lodge swimming pool (see item #6 on figure II-2). The swimming pool would remain in its existing location and condition.

The National Park Service would also provide a climbing display building (see discussion under Camp 4, below).

Amphitheater. The Yosemite Lodge outdoor amphitheater would be relocated to a new location east of the new registration building (see item #7 on figure II-2). The new amphitheater, which would have a larger capacity and a stronger connection with the outdoor park experience, would be used primarily for evening interpretive programs and other special functions. The amphitheater would provide capacity for 300 to 350 individuals and would be oriented toward Yosemite Falls. A fire circle would be included in the amphitheater design for evening talks.

Viewing Plaza

Two small, informal viewing plazas (see item #8 on figure II-2) would be provided along the promenade to create a gathering area for impromptu seating, relaxing, taking pictures, and viewing Valley features. The viewing plazas would be oriented toward Yosemite Falls. The National Park Service would provide several types of natural seating features, such as boulders, logs, and benches. To encourage relaxation and personal reflection on Valley resources, the viewing plazas would be free of interpretive signs.

Bicycle Rental

A new bicycle rental stand would be provided near the multi-use paved trail near Azalea (see item #11 on figure II-2). The existing bicycle rental stand would be removed. Secure bicycle racks would be dispersed throughout the site.

Camp 4

Camp 4 Campsites

The National Park Service would provide 65 campsites at Camp 4 (see item #14 on figure II-2). Of these 65 campsites, 3 campsites would be used by search and rescue volunteers, and 62 campsites would be available to the general public. One fire ring would be provided for every two campsites.

A total of 32 campsites at Camp 4 would be retained and redesigned to conform to the existing landscape. The National Park Service would construct an additional 33 campsites east of the campground. Five existing campsites west of the intermittent creek at Camp 4 would be removed and the area restored to provide a buffer between Camp 4 and the Indian Cultural Center.

Camp 4 would continue to operate as a walk-in campground and allow up to six individuals per site. Approximately 5% of Camp 4 campsites would be disabled-accessible, consistent with federal accessibility standards.

Camp 4 campsites would be designed to be compatible with the historic site character and natural features. Minimal site grading would occur to facilitate water drainage off paths. Important historic features would be retained.

The design of Camp 4 would allow the National Park Service to close sections of the campground during the off-season, if the full campground capacity is not needed.

Common Facilities

New and upgraded common facilities would be provided at Camp 4, including restroom/shower, cooking, and storage facilities. Under this alternative, 3 restroom facilities would be provided, including 38 toilet stalls and 12 heated showers. Two restroom facilities would be located in the center of both the eastern and western camping areas (see item #16 on figure II-2), including the existing restroom building, which would be renovated. One restroom/shower facility would be located near the existing parking lot (see item #17 on figure II-2). The centralized restroom/shower facility would provide shared toilet facilities for day visitors. Up to 65 gear storage lockers would be located in centralized areas and would be incorporated into the footprints of proposed or existing buildings. In addition, up to three food lockers per campsite would be provided at dispersed locations throughout the campground.

A new common cooking pavilion would be provided in the center of the Camp 4 site (see item #18 on figure II-2). The pavilion would provide a group gathering area and serve multiple functions, including cooking, cleaning dishes, and eating. The cooking pavilion would include four cold-water utility sinks (with grease traps) and one group fire ring. Approximately 50 individuals could be accommodated at picnic tables under the pavilion roof.

Secure bicycle racks for up to 130 bicycles would be provided at dispersed locations throughout Camp 4 (see item #21 on figures II-2 and II-3).

Camp 4 Parking

The National Park Service would provide 195 parking spaces at Camp 4 (i.e., 3 spaces per campsite). The Camp 4 parking lot would have a paved black surface to minimize maintenance and views of the parking lot from the Valley rim. Camp 4 parking would be located on both the Camp 4 and the Yosemite Lodge sites (see item #20 on figure II-2). In addition to the 195 parking spaces, an appropriate number of disabled-access parking spaces would be provided, consistent with federal accessibility standards. The paved Camp 4 parking areas would add approximately 69,600 square feet of new impervious surfaces in the project area.

Climbing Display Building

A free-standing climbing display building (see item #19 on figure II-2) would be provided near the Camp 4 shuttle bus stop. This facility would feature interpretive displays and presentations on the climbing history of Yosemite National Park and would incorporate an interior lounge area for park visitors to congregate while viewing the displays.

Trails

Alternative 2 would provide 28,250 linear feet of trails, including 9,350 linear feet of multi-use paved trails, 16,550 linear feet of pedestrian trails, and 2,350 linear feet of hiker/stock trails (see figure II-6).

As discussed above, existing Northside Drive between the roundabout and the western connection of realigned Northside Drive and existing Northside Drive would be converted to a multi-use paved trail. Emergency vehicle access would be provided on the multi-use paved trail that was formerly Northside Drive. On the Lodge site, a promenade would form the central pedestrian corridor for Yosemite Lodge (see items #9 and #32 on figure II-2), linking the main pedestrian entrance to the Lower Yosemite Fall area. The existing multi-use paved trail in the southern portion of the Lodge site would be upgraded, and improved trail connections would be provided among Yosemite Falls, the Lodge site, and the multi-use paved trail to Swinging Bridge (see item #32 on figure II-2). Pedestrian pathways and circulation at Yosemite Lodge would be modified to support proposed facilities and to improve visitor experience and access. Wayfinding at Yosemite Lodge would be improved through the provision of directional and interpretive signs.

The Valley Loop Trail (located north of Camp 4) and the stock trail (see item #33 on figure II-2) would be relocated to the western edge of Camp 4 (on the east side of the existing intermittent drainage), which would help to buffer the Indian Cultural Center from trail users. The Valley Loop Trail would be relocated to the south side of the Indian Cultural Center site so as not to traverse the traditional village area. Improvements would be made to the stock trail (see item #33

on figure II-2), providing trail connections between the Valley Loop Trail and the multi-use paved trail to Swinging Bridge.

Wayfinding would be improved for the Yosemite Falls Trail. The trailhead for the Yosemite Falls Trail would be relocated to the proposed Camp 4 shuttle bus stop (see item #34 near Camp 4 on figure II-2).

Site Utilities

Yosemite Lodge Area Redevelopment site utilities would be upgraded, and new routings would be developed as required for the new building sites (see figure II-7). The utilities include water, sewer, propane, underground electrical, communications, and storm drain facilities. Installation of the improvements would generally require trenching; however, jack-and-bore techniques would be used in environmentally sensitive areas such as wetlands. The project would remove approximately 3,045 linear feet of existing facilities where conflicts exist with the site plan or where such facilities no longer provide reliable service. In addition, approximately 9,000 linear feet of underground utility lines would be abandoned in place in areas where utility service is no longer required, physical removal of underground lines is not required by site design, or removal of such lines could damage sensitive resources.

Water

A new water pipeline would be constructed from the existing pipeline at the east end of the project area up to existing Northside Drive and continuing to the west end of the site. Connections would be made to the individual buildings, and each building connection would include a pressure-reducing valve. The water system would maintain a minimum residual pressure of 20 pounds per square inch during peak demand and to accommodate fire flow requirements. The existing and proposed water system pressure is between 80 and 90 pounds per square inch.

Sewer

The sewer lines would be gravity-fed. The minimum sewer grade would be 1%, to the extent possible. Flow velocity within the sewer would be a minimum of 2 feet per second and a maximum of 5 feet per second. Sewer lines would be located within 4 feet of the surface when possible. Manhole spacing would be a maximum of 300 feet; vehicular access would be provided to all manholes. Sewer manholes would be within 3 feet of the road edge for maintenance access. Water and sewer line crossings would be located in conformance with appropriate health standards regarding the separation of water and sewer lines. Pipeline size would range from between 6 and 10 inches in diameter, depending on the demands, slope, and maintenance requirements of the sewer.

Electricity and Communications

The project would relocate or install new electricity lines, telephone lines, and conduit cables as required to accommodate new facilities. Existing primary power lines would remain in place. The National Park Service would install hollow conduit cables to the Lodge buildings to allow for future technological improvements. The conduit would be located in disturbed utility corridors. Transmission lines would not be installed in the conduit.

Propane

Propane would be used to provide for space and water heating. The National Park Service would install two propane tank farms: one to service the Indian Cultural Center and one for Yosemite Lodge and Camp 4. The propane tank sites would conform to the International Fire Code and would be accessible for refilling and maintenance. The tank farm for Yosemite Lodge and Camp 4 would be located on the western end of the Lodge site, north of realigned Northside Drive (see item #12 on figure II-2). The tank farms would be sited to limit views of the tanks from within and outside of the project area, to the extent possible. Landscape screening and fencing would be developed to provide a secure area for the utility and to screen views of the tanks.

Drainage

Natural surface drainage would be maximized in the project area. As shown in figure II-8, site drainage improvements would include approximately 31 new storm drain culverts. Culvert sizes would range from 24-inch-diameter to 3-foot by 6-foot box culverts, depending upon the flow requirements, depth of channel, and depth of cover limitations. Drainage facilities generally would be designed for a 10-year flood event, although facilities in immediate proximity to proposed buildings would be designed for a 50-year flood event. Those facility crossings near or adjacent to emergency vehicle routes would be designed for a 100-year flood event.

Drainage improvements would be consistent with the requirements of the Merced River Plan and the *Yosemite Valley Plan*. Paved parking lot drainages would include permanent on-site pollutant control facilities, such as oil/water separators, to treat runoff prior to entry into watercourses or creeks, to the extent feasible. The realigned drainage channels or drainage crossings would incorporate combinations of riprap, culverts, and lining to mitigate the effects of erosion and sedimentation. Additional subsurface drainage improvements would be constructed under realigned Northside Drive. These improvements could include drainage blankets, perforated drain lines, or other subsurface pipelines in order to accommodate natural drainage patterns in the area.

Restoration

Three areas on the Yosemite Lodge Area Redevelopment site are proposed to be restored to natural conditions to the extent practicable, including the area between the proposed realignment of Northside Drive at Yosemite Lodge and the Merced River (the site of former Yosemite Lodge cabins, Pine Cottage, and employee housing), the area between the cabins and parking area on the Lodge site, and an area between Camp 4 and the Indian Cultural Center (see item #10 on figures II-2 and II-3). A total of 37.89 acres would be restored under Alternative 2, not including impervious and semipervious surfaces in the restoration areas.

The restoration effort would remove the revetment and diversion dam along Yosemite Creek to restore overland flow across the Merced River floodplain. The National Park Service would revegetate the Merced River channel at and downstream of the confluence, eradicate non-native plants, and re-establish a more natural stand of riparian forest and oak woodland on the floodplain. Oak woodland rehabilitation would be encouraged through plantings of California black oak seedlings. As part of the restoration effort, the National Park Service would redirect visitor traffic around disturbed areas with fencing and interpretive signs and would decompact and revegetate inappropriate social trails and abandoned roads. The National Park Service would create riverbank access with a boardwalk between Yosemite Lodge and the Merced River's

northbank sandbar, allowing visitors to access the river without damaging the floodplain, wetlands, riparian communities, or riverbanks.

Restoration activities would include eradicating the non-native Himalayan blackberries in the eastern portion of the Lodge site and the non-native maple trees in the western portion of the site. Young conifer proliferation would be discouraged through groundwater alteration, social trail decompaction, and low-intensity prescribed burns. National Park Service staff would also conduct prescribed burns to support rehabilitation of oak woodlands and riparian forests. The restoration effort would include conducting channel morphology, groundwater, and vegetation monitoring to document changes and inform resource management efforts.

Tree Management

Under Alternative 2, approximately 1,059 trees would be removed within the project site, about 50% of which would be smaller trees (e.g., tree trunks less than 20 inches in diameter measured at breast height). Approximately 641 trees would be removed for development purposes. Approximately 24 hazard trees would be removed for public safety purposes. Approximately 100 trees would be removed for view corridor management to enhance key views and view corridors, as allowed under the resources management division's forest management policies. Approximately 294 trees would be removed for forest management purposes; all of the trees to be removed would be located in the restoration area south of realigned Northside Drive. The forest management effort would include removal of colonizing trees to restore meadows. Approximately 75% of conifers and 25% of miscellaneous trees (which includes non-native species) in the restoration areas would be removed. All non-native trees would be removed from the site, including a small stand of sugar maple trees.

Approximately 3,603 trees would remain within the project area. Appendix B, Tree Management, provides a breakdown by tree type and size class of the trees to be removed and retained under Alternative 2.

Wetlands

Under Alternative 2, approximately 0.43 acres of waters of the U.S. would be disturbed. Areas of disturbance include parking areas, roadways, trails, and utilities to be constructed and removed. The total area of disturbance includes the development area plus an area of adjacent disturbance due to construction activity. Approximately 7.5 feet would be disturbed on either side of roadways, parking areas, and multi-use paved trails and 5.0 feet on either side of pedestrian or hiker/stock trails.

To compensate for loss or alteration of wetlands, restore riparian wetland habitat within the restoration area identified for this action in an area suitable for wetland restoration Merced River floodplain at a minimum ratio of 1:1 as part of the restoration program included in Phase 3 of project development.

Pervious and Impervious Surfaces

Under Alternative 2 within the project area, approximately 3,513,300 square feet would be pervious surfaces, 225,600 square feet would be semipervious surfaces, and 929,500 square feet would be impervious surfaces. Within the 100-year floodplain, approximately 21,200 square feet would be semipervious surfaces and 246,000 square feet would be impervious surfaces.

Construction Phasing

Construction of the Yosemite Lodge Area Redevelopment would occur in three phases over a 13-year period, from spring 2004 through fall 2016. Construction activity would not occur continuously during the entire 13-year period. Rather, intensive Phase 1 construction activity would occur at the Lodge for a two-year period, followed by a several-year period of construction inactivity at the site. Subsequently, Phase 2 Camp 4 and Indian Cultural Center construction activity as well as Phase 3 restoration and revegetation activity would occur during an intensive two- to three-year construction period, also followed by a several-year period of construction inactivity. Finally, intensive Phase 2 construction activity at the Lodge would occur during an approximately two-year period, concluding in fall 2016.

The construction working hours would be from approximately 8:00 a.m. to 6:00 p.m. Occasional weekend staffing would likely be required to meet the construction schedule. Some utility work would be scheduled for nights and/or weekends to minimize service interruptions.

New building construction and existing building renovations would be consistent with the park's architectural guidelines.

Staging Areas. During project construction, staging areas would be used to store materials and equipment. The primary staging area would be located at the existing parking lot adjacent to the new cottages, cabins, and other buildings. The secondary staging area for utility and paving equipment would be located near the proposed overnight bus parking area. The size and location of staging areas are expected to vary throughout the project duration. Staging areas and construction sites would be screened from public view. Staging areas would be managed to restrict public access and maintain site safety. In addition, informational signs would educate visitors and enhance safety by restricting visitor proximity to staging areas.

Utilities. The project involves upgrading utilities at the site. National Park Service standards dictate materials, construction methods, and operational parameters for the new utility services. During construction, the National Park Service would maintain utility service to operating facilities in the project area. Utility service may be temporarily interrupted during construction to allow certain improvements, such as new connections to existing mains. Interruption of utility service would be minimized, but any such interruption would be coordinated among the contractor, the National Park Service, and the concessioner.

Utility Removal. Approximately 3,045 linear feet of utility lines would be removed, generally in areas that would already be disturbed due to construction activities (such as roadways or parking lots), or when the removal of underground utility lines would facilitate construction activities. In areas where utility lines would remain in service, the individual service lines would be disconnected from the mains and appropriate modifications performed to maintain continued service. In areas where the utility mains would be removed, the contractor would dispose of the materials in a manner consistent with applicable codes and regulations. Service to existing facilities would be maintained at all times.

Utility Abandonment. In some circumstances, it would be environmentally preferable to abandon utilities in place. Approximately 9,000 linear feet of utilities would be abandoned in place, generally in areas that no longer need utility service (i.e., buildings to be removed), or where the presence of the underground utility would not interfere with either planned construction

activities or future uses of the area. Utility abandonment would involve installing concrete plugs, crushing pipes in place, or filling pipes with grout or blown-in sand. Abandoned propane mains would be purged so that no residual propane remains in the abandoned line.

Vaults, manholes, and similar structures to be abandoned may require removal and disposal of at least the top 2 feet of the soil in the utility area and involve placing concrete plugs in all entering and exiting pipes and conduits and backfilling the remaining structure with compacted material.

Underground Utilities Construction. Utilities work would include stripping and stockpiling topsoil (i.e., the top 6 inches of soil), excavating the trench to grade, installing utility pipes or conduit, and backfilling and compacting soil materials. Upon confirming acceptable pipe integrity and compaction, the topsoil would be replaced and final grading completed. The work effort would also include installation of manholes, valves, vaults, and the like at designated locations.

The disturbed area for utility trenches in unpaved areas would be approximately 25 feet wide, including the 2- to 5-foot width of the trench (depending on trench depth), 10 feet on one side for topsoil and pipe layout, and 10 feet on the other side for trench spoils. In trenches with multiple pipes and conduits, the trench width would increase by approximately 5 feet for each pipe of different function. The disturbed area would increase between 5 and 10 feet at manhole and vault locations.

Storm Drainage Construction. Culvert installation would involve stripping topsoil and streambed material (to the extent necessary), excavating to grade, installing culvert structures, compacting materials, and restoring surface materials. Some culvert locations may require installation of headwalls, which would be made of concrete surfaced with native stone.

Culverts would be installed primarily in paved areas. Headwalls (inlet and outlet structures) would require streambed disturbance of approximately 10 to 20 feet outside the structure limits to allow for work space and material stockpiling. Streambed stabilization may be necessary to accommodate design flows.

Construction Worker Parking. All construction worker parking would be located outside of Yosemite Valley, with the exception of key supervisory personnel (approximately four to seven individuals). Approximately 7 to 10 shuttle vans would transport construction personnel into and out of Yosemite Valley during Phases 1 and 2.

Phase 1

Demolition. Phase 1 would occur during a two-year period, from spring 2004 through summer 2006. Phase 1 would include demolition of 88 lodging units (including Birch, Alder, Hemlock, and Maple), employee housing, maintenance buildings, the Wellness Center, the post office, bicycle rental stand, and other miscellaneous buildings (see figure II-9).

Construction. Phase 1 would include construction of five new cottages, realigned Northside Drive, the promenade and viewing plazas, the registration parking lot, the walkway to the existing registration building, maintenance buildings, propane tank facility, bicycle rental stand, Lodge shuttle bus stop, parking lots, and miscellaneous roadways. Phase 1 would also include converting existing Northside Drive to a multi-use paved trail between the roundabout and the western connection of realigned Northside Drive and existing Northside Drive (see figure II-10).

Lodging and Parking. At the end of Phase 1, Yosemite Lodge would have 247 lodging units, 356 standard parking spaces (including 247 spaces for overnight guests, 74 overlap spaces, 20 spaces for employees, and 15 spaces for maintenance vehicles), and 40 loading/unloading parking spaces (including 20 registration and 20 drop-off parking spaces).

During Phase 1, the Lodge site would provide 15 overnight bus parking spaces and 30 temporary day-visitor bus parking spaces. The day-visitor buses would temporarily share the 15 overnight bus parking spaces, and up to 15 additional day-visitor buses could park temporarily in a parking lot being built to accommodate expanded Camp 4 campsites (see item #16 on figure II-10). Since Camp 4 would not be expanded until Phase 2, these additional Camp 4 parking spaces would be temporarily available. There may be periods of time during Phase 1 that the Lodge site would not be able to accommodate the day-visitor buses on the site due to construction constraints. During these periods, buses could be parked as indicated in the *Lower Yosemite Fall Project Environmental Assessment* or at a location identified by the transportation planning effort implementing actions identified in the *Yosemite Valley Plan*.

At the end of Phase 2 or when the Camp 4 expansion is complete and the parking lot is needed, the day-visitor buses would be parked in areas indicated in the *Lower Yosemite Fall Project Environmental Assessment*, or at a location identified by the transportation planning effort implementing actions identified in the *Yosemite Valley Plan*.

Construction Workers and Equipment. Phase 1 building demolition, construction, utility improvements, and tree removal would require a total of approximately 150,000 person-hours, with a typical peak workforce of approximately 80 to 90 individuals during one year of the construction period, and 30 to 40 individuals during the remaining period. There would be approximately 1,020 truck trips associated with Phase 1 construction and demolition activities. A breakdown of truck trips is provided in table II-1.

Heavy equipment for utility and paving work would include approximately six backhoes, two bulldozers, two graders, six dump trucks, one paving machine, two watering trucks, air compressors, jackhammers, chainsaws, and various powered hand tools and small electric generators. Heavy equipment for building demolition, excavation, and grading for new construction would include approximately four backhoes, one bulldozer, two dump trucks, one watering truck, one small crane truck, air compressors, jackhammers, and various powered hand tools and small electric generators.

Phase 1 construction and demolition would cost approximately $20.3 million.

Phase 2

Demolition. Phase 2 would occur during a 10-year period, from fall 2006 through fall 2016. Phase 2 would include demolition of 40 lodging units (including Juniper and Laurel), the electrical substation, and the search and rescue tent cabins (see figure II-11).

Construction. Phase 2 would include construction of 11 new cabins, the new registration building, the new amphitheater, expanded Camp 4 campsites and facilities, the Indian Cultural Center, and miscellaneous roads and parking lots. In addition, Phase 2 would include renovation of the existing registration building and other Lodge facilities, consistent with the park's architectural guidelines, and renovation of existing Camp 4 (see figure II-12). Traditional structures at the

Indian Cultural Center would be constructed using traditional materials and methods when possible, and most work would likely be performed as a community effort by tribal members.

Lodging and Parking. At the end of Phase 2, Yosemite Lodge would have 251 lodging units, 361 standard parking spaces (including 251 spaces for overnight guests, 75 overlap spaces, 20 spaces for employees, and 15 spaces for maintenance vehicles), 40 loading/unloading parking spaces (including 20 registration and 20 drop-off parking spaces), and 15 overnight bus parking spaces. Camp 4 would have a total of 65 campsites and 195 parking spaces.

Construction Workers and Equipment. Phase 2 building demolition, construction, and utility improvements would require a total of approximately 55,000 person-hours, with a typical peak workforce of approximately 65 to 75 individuals during intensive redevelopment activities (likely occurring during a 12-month period), and 25 to 35 individuals during the remaining construction period. There would be approximately 276 truck trips associated with Phase 2 construction and demolition activities. A breakdown of truck trips is provided in table II-1.

Heavy equipment for utility and paving work would include approximately two backhoes, one bulldozer, one grader, two dump trucks, one paving machine, one watering truck, air compressors, jackhammers, chainsaws, and various powered hand tools and small electric generators. Heavy equipment for building demolition, excavation, and grading for new construction would include approximately four backhoes, one bulldozer, two dump trucks, one watering truck, one small crane truck, air compressors, jackhammers, and various powered hand tools and small electric generators.

Phase 2 construction and demolition would cost approximately $27.4 million.

Phase 3

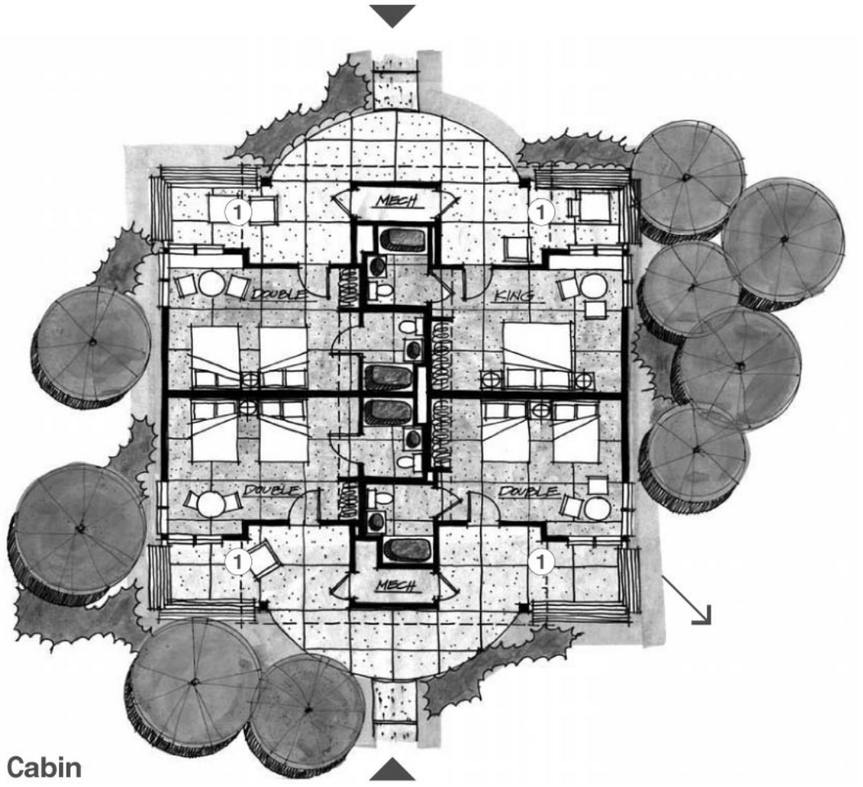
Phase 3 would occur during a three-year period, from fall 2008 through fall 2011. Phase 3 would implement improvements to the restoration areas (including wetland restoration and removal of a diversion dam and revetments along Yosemite Creek) as well as revegetation efforts in the area north of Camp 4 and south of the Valley Loop Trail (see figure II-13). Staging areas would be small and mobile, depending upon the area of work.

Construction Workers and Equipment. Phase 3 restoration and revegetation would require a total of approximately 30 individuals working seasonally during a three-year period. Approximately 20 flatbed trailer and dump truck trips would be required during the three-year restoration and revegetation period to deliver plants and other restoration and revegetation materials and to haul out debris and fill materials.

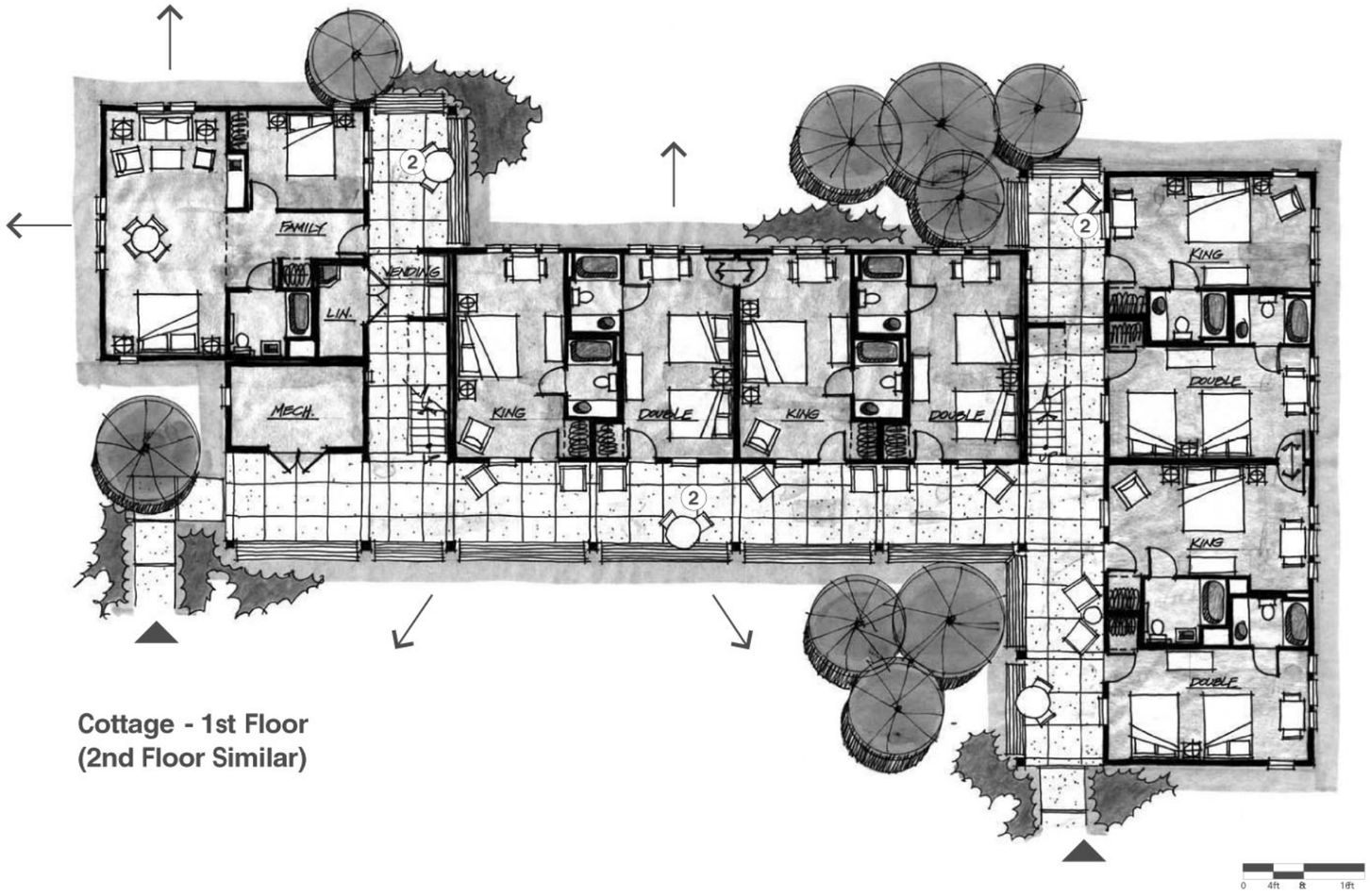
Heavy equipment for restoration and revegetation work would include approximately four crew-cab work trucks, two bobcats, a small cargo trailer for hand tools and plants, chainsaws, and a hydroseeder mounted on a semi-flatbed truck.

Phase 3 restoration and revegetation efforts would cost approximately $4.1 million.

Figure II-5
Cabin and Cottage Architectural Schematic Floor Plans



Cabin



Cottage - 1st Floor
(2nd Floor Similar)

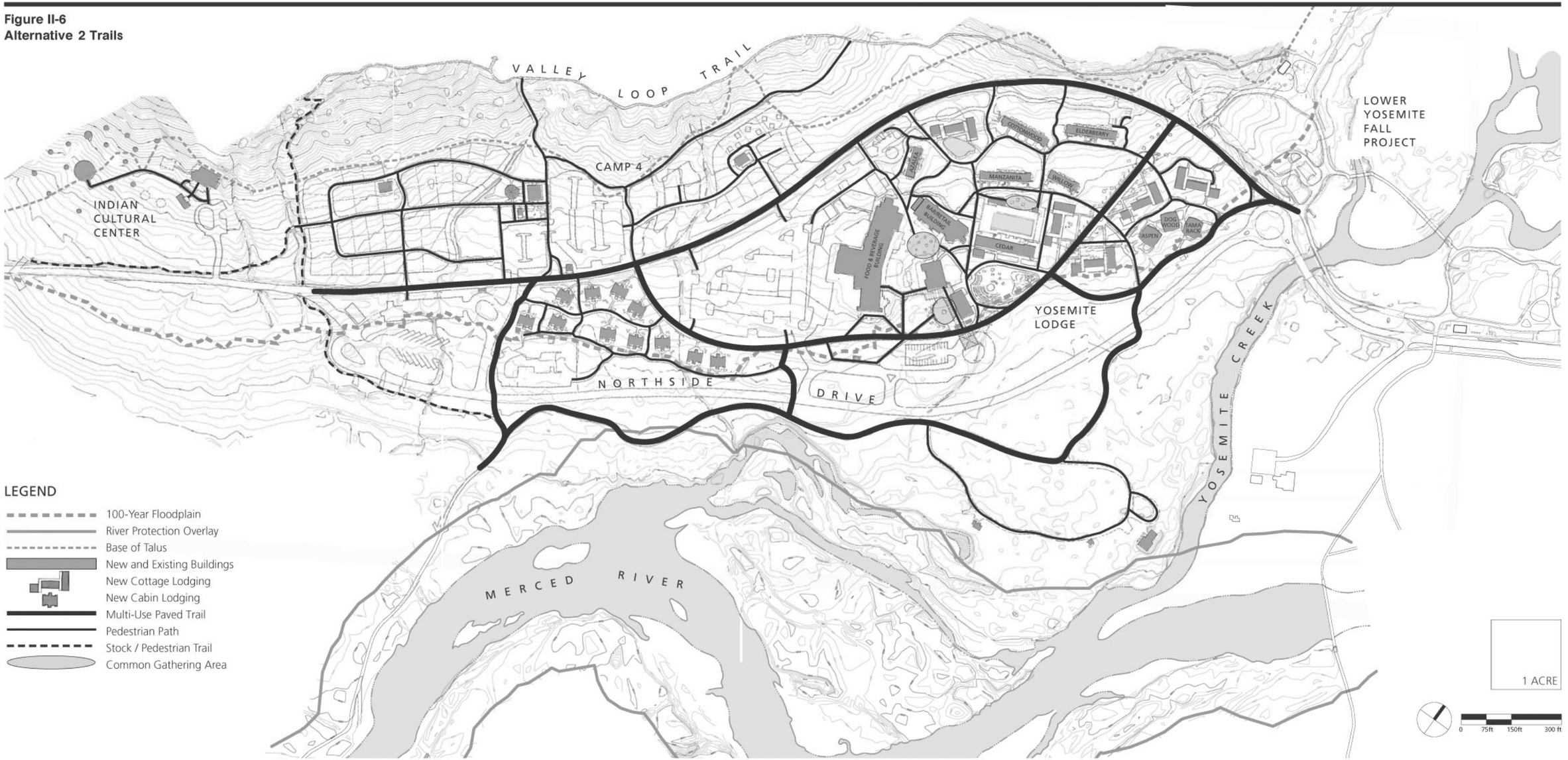
LEGEND

1	Patio
2	Veranda
▲	Main Access
→	Views (typ.)

SOURCE: Sasaki Associates Inc.

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

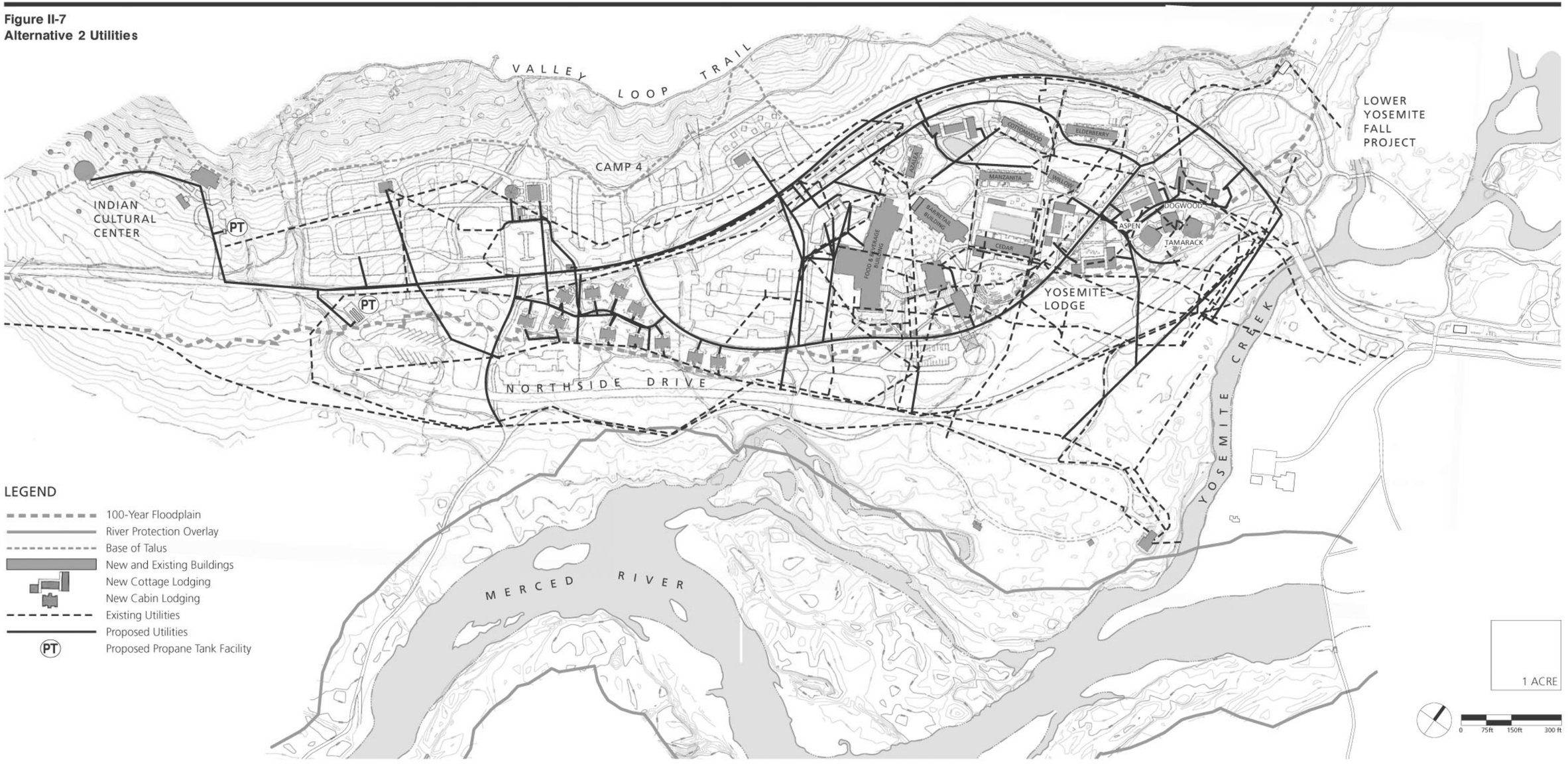
Figure II-6
Alternative 2 Trails



SOURCE: National Park Service and Sasaki Associates Inc .

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

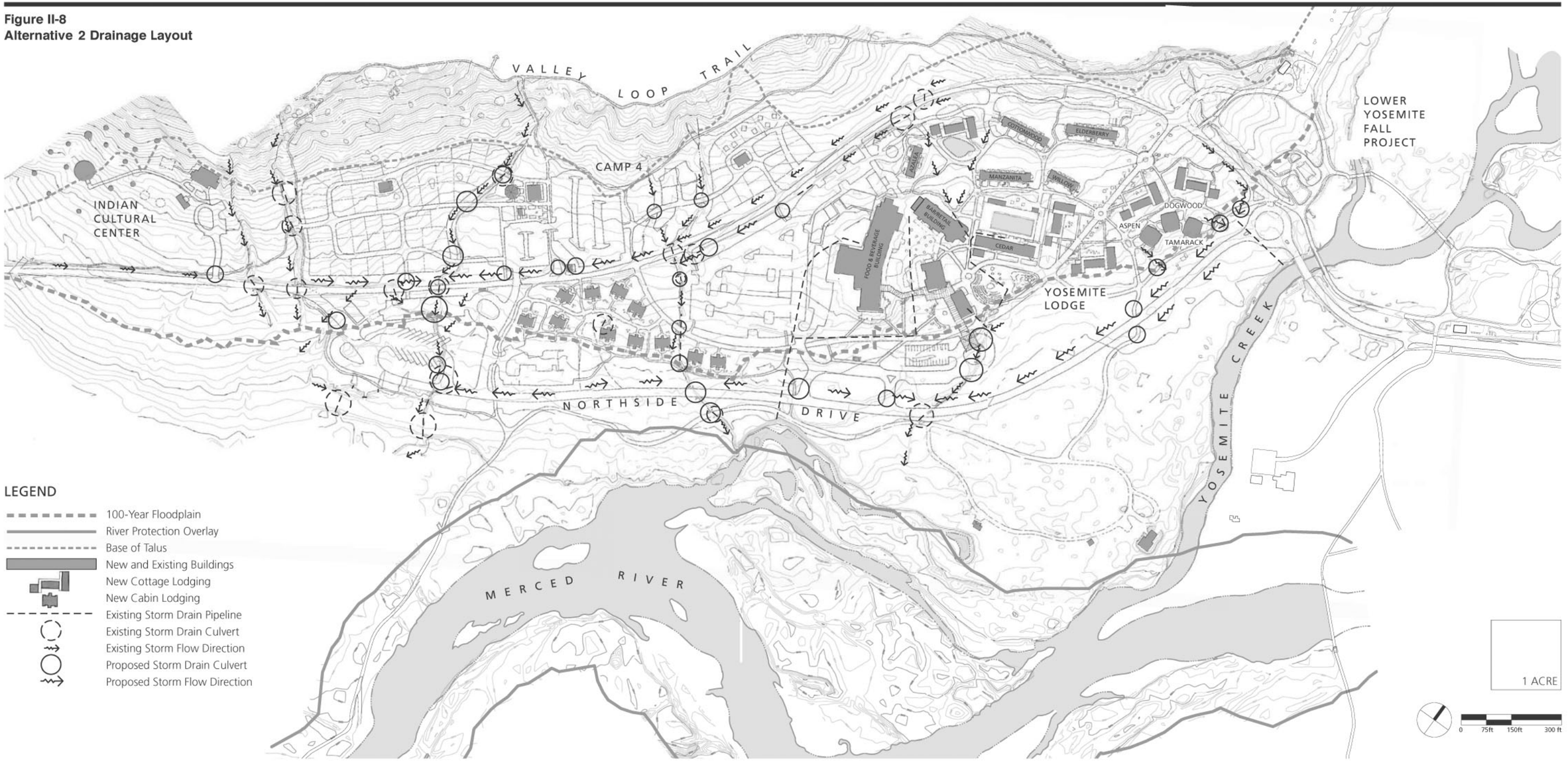
Figure II-7
Alternative 2 Utilities



SOURCE: National Park Service, Provost & Pritchard Inc., and Sasaki Associates Inc.

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

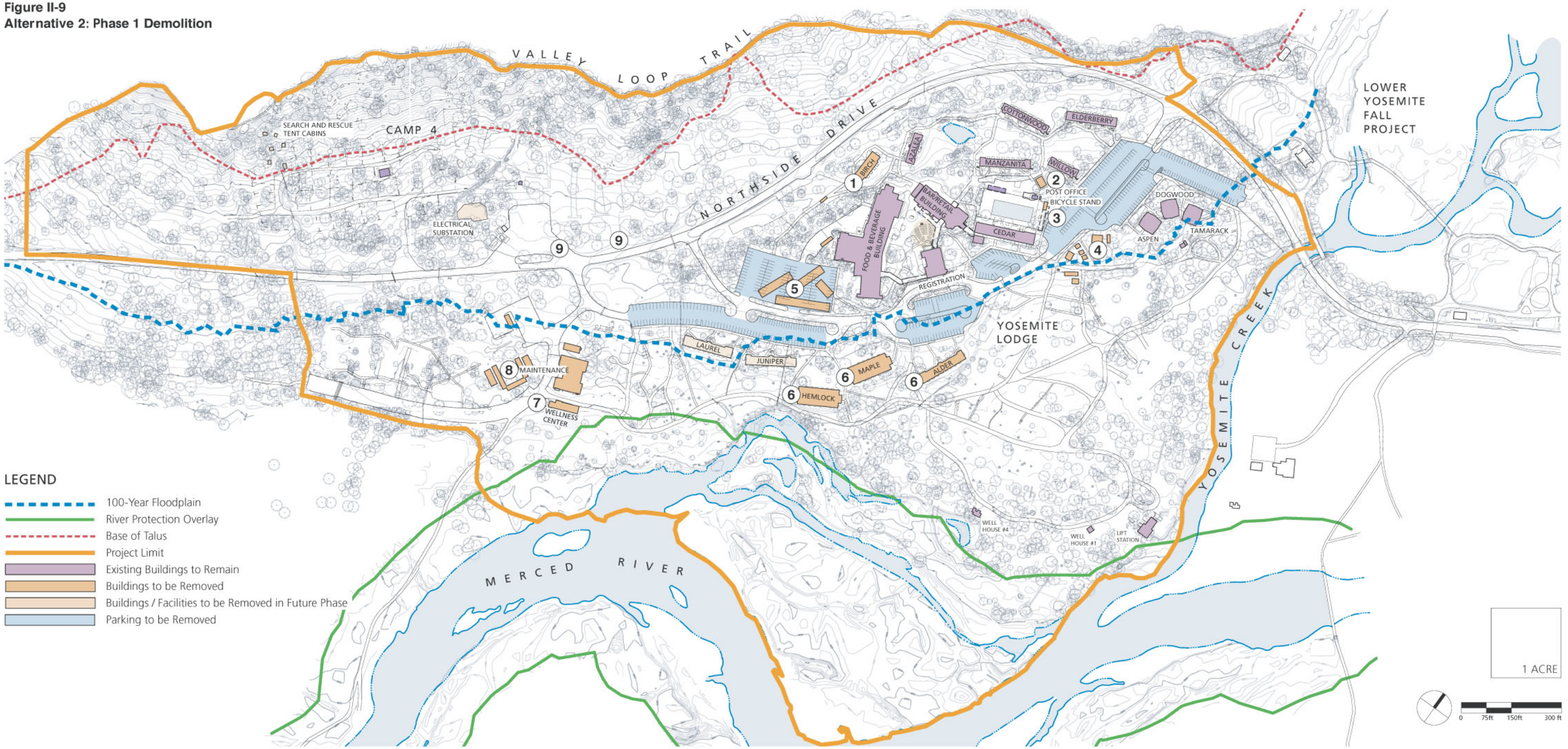
Figure II-8
Alternative 2 Drainage Layout



SOURCE: National Park Service, Provost & Pritchard Inc., and Sasaki Associates Inc.

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

Figure II-9
Alternative 2: Phase 1 Demolition



LEGEND

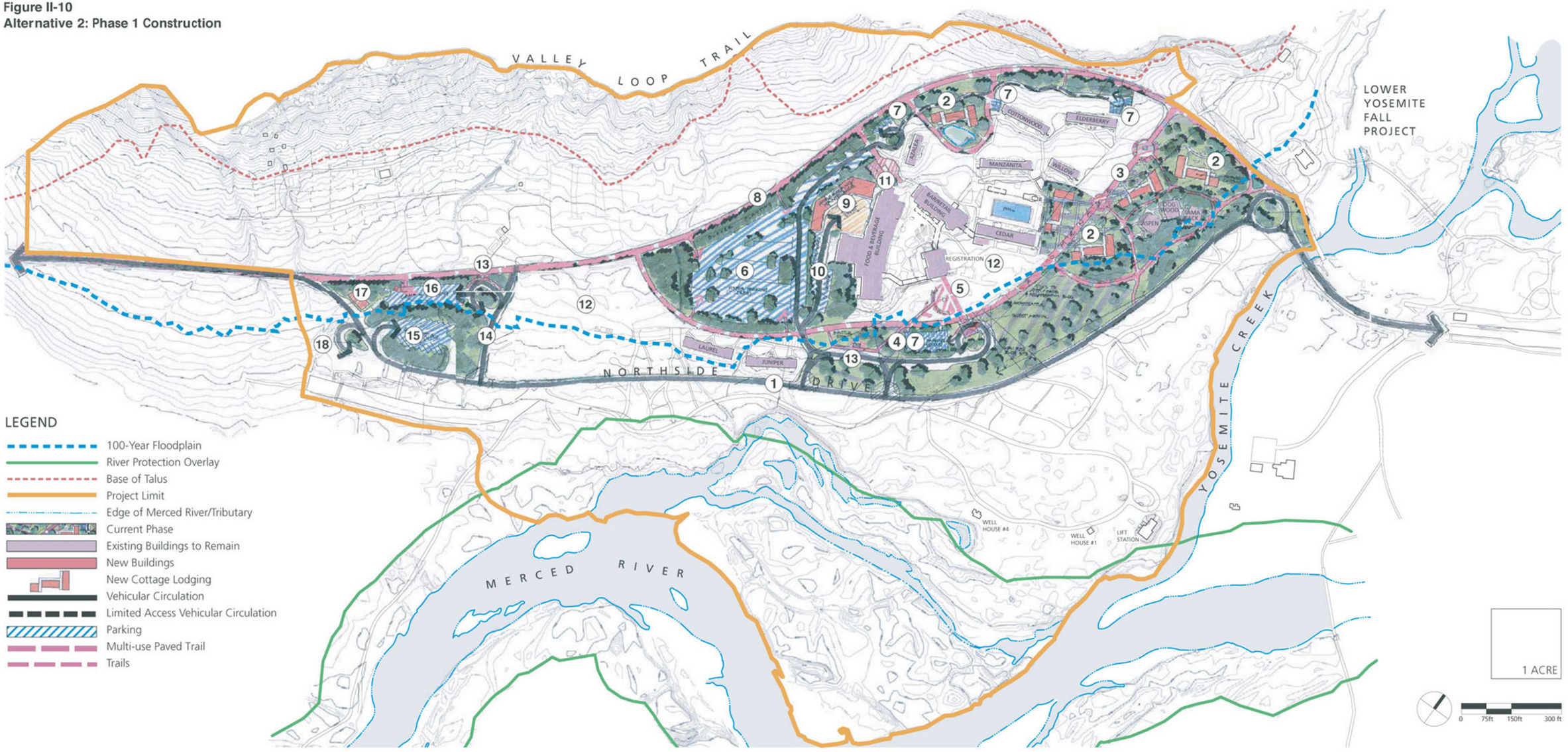
- 100-Year Floodplain
- River Protection Overlay
- Base of Talus
- Project Limit
- Existing Buildings to Remain
- Buildings to be Removed
- Buildings / Facilities to be Removed in Future Phase
- Parking to be Removed

1 Remove Birch Unit
2 Remove Post Office
3 Remove Bicycle Stand
4 Remove Miscellaneous Buildings
5 Remove Employee Housing
6 Remove Alder, Hemlock and Maple Units
7 Remove Wellness Center
8 Remove Maintenance Buildings
9 Remove Camp 4 Parking Lot Ingress / Egress

SOURCE: National Park Service and Sasaki Associates Inc .

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

Figure II-10
Alternative 2: Phase 1 Construction



1 Construct New Northside Drive
2 Construct 5 New Cottages
3 Construct Promenade and Viewing Plazas
4 Construct New Registration Parking
5 Construct Entrance/Walkway at Registration Area
6 Construct Lodge Guest Parking
7 Construct Drop-off Parking Spaces
8 Convert Old Northside Drive to Multi-use Paved Trail
9 Construct Maintenance Buildings
10 Construct Maintenance and Employee Parking
11 Construct Bicycle Rental Stand
12 Remove Existing Paving and Provide Temporary Vegetation
13 Construct Shuttle Bus Stop
14 Construct Camp 4 Access Drive
15 Construct Overnight Bus Parking Lot
16 Construct Interim Day Use Bus Parking
17 Construct Propane Tank Facility
18 Construct Turnaround

SOURCE: National Park Service and Sasaki Associates Inc .

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

Figure II-11
Alternative 2: Phase 2 Demolition

LEGEND

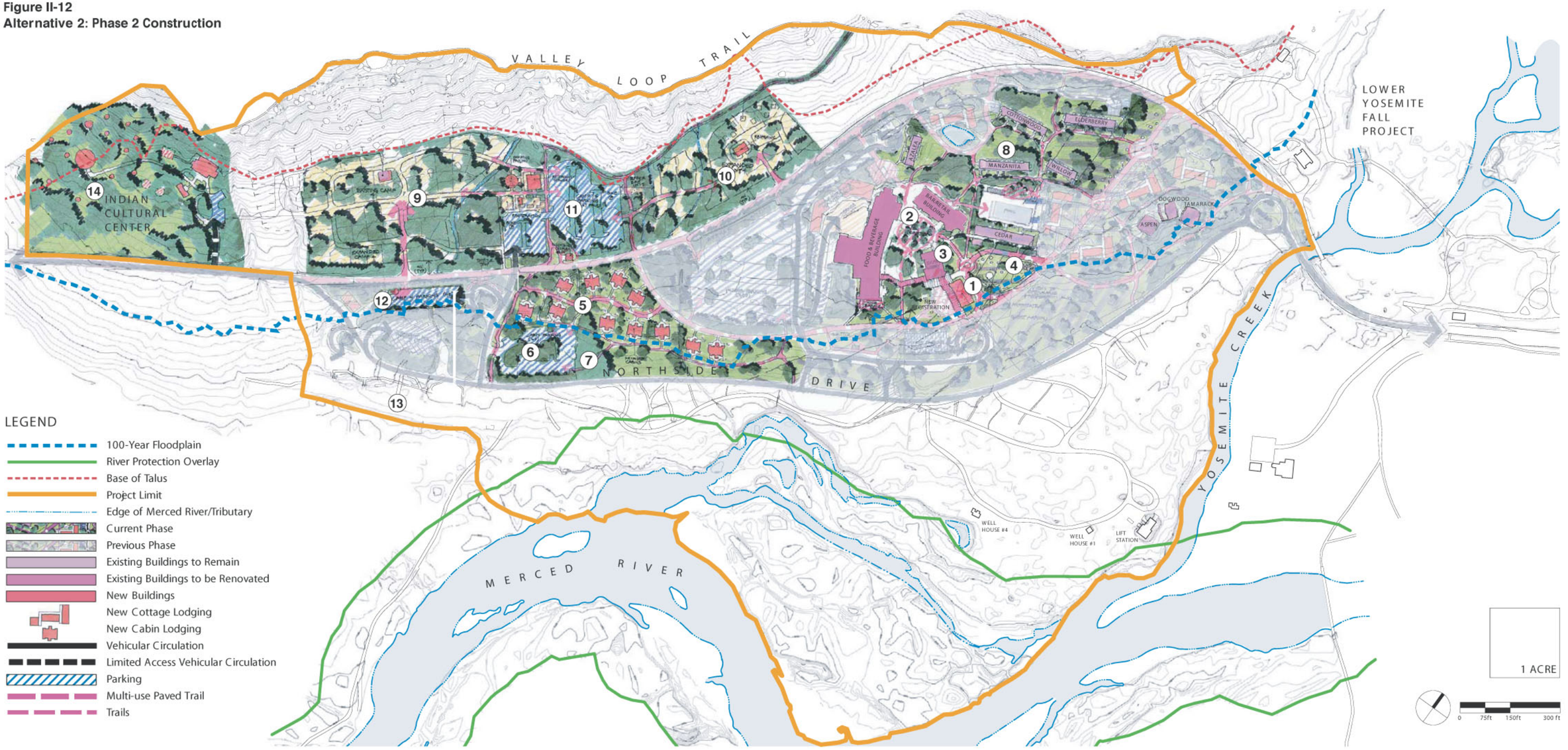
- 100-Year Floodplain
- River Protection Overlay
- Base of Talus
- Project Limit
- Existing Buildings to Remain
- Buildings / Facilities to be Removed
- Buildings Removed in Prior Phase
- Parking to be Removed

1 Remove Juniper and Laurel Units
2 Remove Electrical Substation
3 Remove Search and Rescue Tent Cabins
4 Remove Existing Amphitheater

SOURCE: National Park Service and Sasaki Associates Inc .

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

Figure II-12
Alternative 2: Phase 2 Construction



LEGEND

- 100-Year Floodplain
- River Protection Overlay
- Base of Talus
- Project Limit
- Edge of Merced River/Tributary
- Current Phase
- Previous Phase
- Existing Buildings to Remain
- Existing Buildings to be Renovated
- New Buildings
- New Cottage Lodging
- New Cabin Lodging
- Vehicular Circulation
- Limited Access Vehicular Circulation
- Parking
- Multi-use Paved Trail
- Trails

1 ACRE

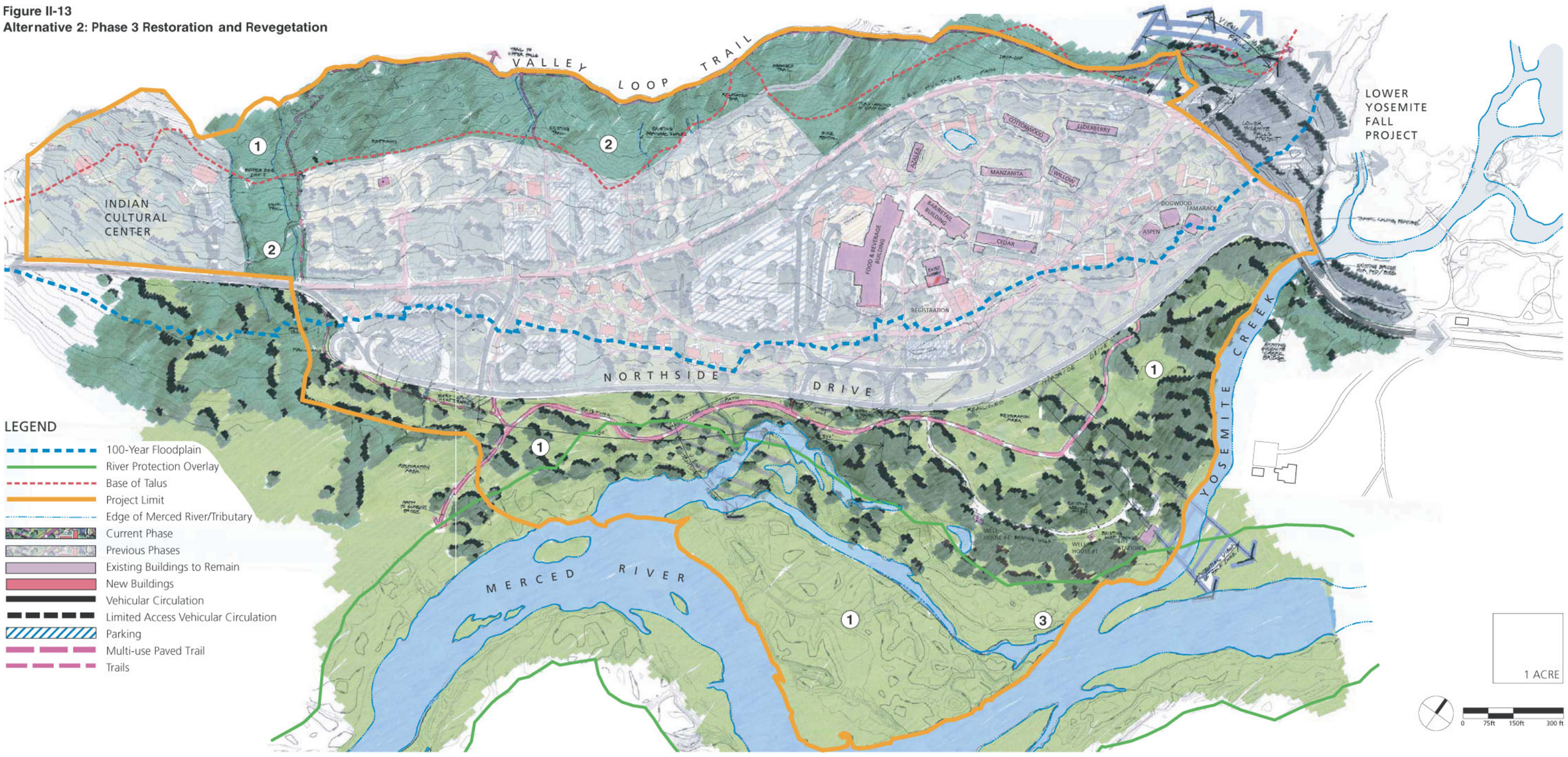
0 75ft 150ft 300 ft

1 Construct New Registration Building
2 Renovate Existing Lodge Buildings and Courtyard
3 Renovate Existing Registration Building for Tour Operations
4 Construct New Outdoor Amphitheater
5 Construct 11 New Cabins
6 Construct Lodge Guest Parking
7 Implement Improvements to Restoration Area
8 Complete Site Improvements
9 Renovate Existing Camp 4
10 Construct Expanded Camp 4
11 Construct Camp 4 Parking
12 Convert Interim Bus Parking Lot to Camp 4 Parking
13 Remove Existing Paving and Provide Temporary Vegetation
14 Construct Indian Cultural Center Improvements

SOURCE: National Park Service and Sasaki Associates Inc .

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

Figure II-13
Alternative 2: Phase 3 Restoration and Revegetation



1 Implement Improvements to Restoration Area
2 Implement Improvements to Revegetation Area
3 Removal of Diversion Dam

SOURCE: National Park Service and Sasaki Associates Inc .

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

Alternative 3

Yosemite Lodge

Lodging Units

The lodging units under Alternative 3 would be the same as those described under Alternative 2, except for the layout of the new cottage and cabin lodging units. Under Alternative 3, the proposed one-story cabin units and the two-story cottage units would be interspersed throughout the Lodge site (see figure II-3).

Lodge Guest Parking

The same number and type of Lodge guest parking spaces would be provided under Alternative 3 as under Alternative 2, although the layout would differ under this alternative. The Alternative 3 parking configuration would feature more remote parking than would Alternative 2. A large parking lot would be located at the western end of the Lodge site, and a smaller parking lot would be located in the center of the Lodge site (see item #3 on figure II-3). Unlike Alternative 2, in which the western parking lot would be used by guests staying in cabin units, under Alternative 3 both parking areas would be available to guests of any type of lodging unit. The majority of parking would be removed from the immediate guest lodging areas, which would enhance connections between interior spaces and the outdoors and promote a pedestrian experience at Yosemite Lodge. As in Alternative 2, loading/unloading parking spaces would be designed to increase convenience to visitors (see item D on figure II-3). At park entrance stations, the National Park Service would direct day visitors to Yosemite Valley day-visitor parking at Yosemite Village.

Typical Distance to Rooms. Under Alternative 3, the typical distance from a drop-off area to a lodging unit would be approximately 10 to 500 linear feet. The typical distance from a parking lot to a lodging unit would be approximately 240 to 2,070 linear feet. The extreme distance from a parking lot to a room would be 2,530 linear feet.

Common Gathering Areas

Common gathering areas would be provided on the Yosemite Lodge site to promote the connection between visitors and the outdoors. Common gathering areas would include small, informal outdoor seating areas, the existing outdoor amphitheater area (see below) and the Lodge swimming pool (see item #6 on figure II-3). In addition, the National Park Service would provide interior interpretive display space at Yosemite Lodge for changeable informational exhibits on such topics as Yosemite's climbing history, Yosemite Indian cultural history, or U.S. Army park administration history.

Amphitheater. The existing Yosemite Lodge amphitheater would be improved at its current location (see item #7 on figure II-3). The amphitheater would accommodate between 150 to 200 individuals and would be used primarily for evening interpretive programs and other special functions.

Viewing Plaza

An informal viewing plaza (see item #8 on figure II-3) would be created along the promenade to provide a gathering area for impromptu seating, relaxing, taking pictures, and viewing Valley features. The viewing plaza under Alternative 3 would be larger than the two smaller scale viewing plazas proposed under Alternative 2. The viewing plaza would be oriented toward Yosemite Falls.

Under Alternative 3, the existing Yosemite Lodge amphitheater would be improved at its current location.

The National Park Service would provide several types of natural seating features, such as boulders, logs, and benches. To encourage relaxation and personal reflection, the viewing plaza would be free of interpretive signs.

Bicycle Rental

A new bicycle rental stand would be provided near the Lodge shuttle bus stop (see item #11 on figure II-3). The existing bicycle rental stand would be removed. Secure bicycle racks would be dispersed throughout the site.

Camp 4

Camp 4 Campsites

The Camp 4 campsites under Alternative 3 (see item #14 on figure II-3) would be the same as those described under Alternative 2, except for the number of fire rings provided. Alternative 3 would feature one fire ring for every campsite.

Common Facilities

New and upgraded common facilities would be provided at Camp 4, including restroom/shower and storage facilities. Under this alternative, 3 restroom facilities would be provided, including a total of 38 toilet stalls and 12 heated showers. The existing restroom building would be renovated (see item #16 on figure II-3). Two restroom/shower facilities would be constructed at Camp 4 near the existing parking lot and the eastern end of the campground (see item #17 on figure II-3). The centralized restroom/shower facility near the parking lot would have shared toilet facilities for day visitors.

Under Alternative 3, a cooking pavilion and gear storage lockers would not be provided at Camp 4. Up to three food lockers per campsite would be provided in decentralized locations near individual campsites. In addition, secure bicycle racks for approximately 130 bicycles would be located at Camp 4 (see item #21 on figure II-3).

Camp 4 Parking

Camp 4 parking under Alternative 3 would be the same as under Alternative 2, with the exception of the parking lot surface. Under Alternative 3, the Camp 4 parking lot surface on the Camp 4 site would be unpaved (see item #18 on figure II-3), and the Camp 4 parking lot surface on the Lodge site would be paved (see item #20 on figure II-3). The paved Camp 4 parking lot would add approximately 55,900 square feet of new impervious surfaces in the project area.

Trails

Alternative 3 would provide 28,500 linear feet of trails, including 9,150 linear feet of multi-use paved trails, 17,050 linear feet of pedestrian trails, and 2,300 linear feet of hiker/stock trails (see figure II-14).

The major trail system under Alternative 3 (see items #9, #32, and #33 on figure II-3) would be the same as under Alternative 2, with one exception. Under Alternative 3, the Valley Loop Trail (located north of Camp 4) and the stock trail (see item #33 on figure II-3) would be relocated to the western edge of Camp 4, on the west side of the existing intermittent drainage, to help buffer the Indian Cultural Center from trail users. There would be minor differences in the alignment of internal pathways on the Lodge site compared to Alternative 2, based upon the different layout of lodging units and parking lots under Alternative 3.

Site Utilities

Site utilities under Alternative 3 would be the same as under Alternative 2, with some minor exceptions. The utility routings would be developed as required for the Alternative 3 facility site layout (see figure II-15). Approximately 3,345 linear feet of utilities would be removed and 8,775 linear feet of utilities would be abandoned in place. The propane tank farm for Yosemite Lodge and Camp 4 would be located on the western end of the Lodge site, south of realigned

Northside Drive (see item #12 on figure II-3). Unlike Alternative 2, the parking lot layout at the western end of the Lodge site would not allow placement of the tank farm north or realigned Northside Drive. Drainage improvements would be similar to those proposed under Alternative 2. Alternative 3 would also feature approximately 31 new storm drain culverts (see figure II-16).

Restoration

Restoration efforts under Alternative 3 would be the same as described under Alternative 2; however, approximately 37.31 acres would be restored under Alternative 3, not including impervious and semipervious surfaces in the restoration areas.

Tree Management

Under Alternative 3, approximately 1,036 trees would be removed within the project site, including 618 trees for development purposes, 24 hazard trees (removed for public safety), 100 trees for view corridor management, and 294 trees for forest management purposes. As with Alternative 2, approximately 50% of trees to be removed would be smaller trees (e.g., tree trunks less than 20 inches in diameter measured at breast height). Approximately 3,626 trees would remain within the project area. Appendix B, Tree Management, provides a breakdown by tree type and size class of the trees to be removed and retained under Alternative 3.

Wetlands

Under Alternative 3, approximately 0.41 acres of waters of the U.S. would be disturbed. Areas of disturbance include parking areas, roadways, trails, and utilities to be constructed and removed. The total area of disturbance includes the development area plus an area of adjacent disturbance due to construction activity. Approximately 7.5 feet would be disturbed on either side of roadways, parking areas, and multi-use paths and 5.0 feet on either side of pedestrian or hiker/stock trails.

To compensate for loss or alteration of wetlands, restore riparian wetland habitat within the restoration area identified for this action in an area suitable for wetland restoration Merced River floodplain at a minimum ratio of 1:1 as part of the restoration program included in Phase 3 of project development.

Pervious and Impervious Surfaces

Under Alternative 3 within the project area, approximately 3,503,600 square feet would be pervious surfaces, 234,500 square feet would be semipervious surfaces, and 930,300 square feet would be impervious surfaces. Within the 100-year floodplain, approximately 22,700 square feet would be semipervious surfaces and 266,100 square feet would be impervious surfaces.

Construction Phasing

Like Alternative 2, construction of the Yosemite Lodge Area Redevelopment under Alternative 3 would occur in three phases during a 13-year period, from spring 2004 through fall 2016. Hours of construction, utility service, staging areas, and construction worker parking would be the same as identified under Alternative 2, except that approximately 3,345 linear feet of utilities would be removed and 8,775 linear feet of utilities would be abandoned in place.

Similar to Alternative 2, new building construction and existing building renovations would be consistent with the park's architectural guidelines.

Phase 1

Demolition. Phase 1 would occur during a two-year period, from spring 2004 through summer 2006. Phase 1 would include demolition of 88 lodging units (including Birch, Alder, Hemlock, and Maple), employee housing, maintenance buildings, the Wellness Center, the post office, bicycle rental stand, and other miscellaneous buildings (see figure II-17).

Construction. Phase 1 would include construction of four new cottages, five new cabins, realigned Northside Drive, the promenade and viewing plazas, the registration parking lot, the walkway to new existing registration building, maintenance buildings, propane tank facility, bicycle rental stand, Lodge shuttle bus stop, parking lots, and miscellaneous roadways. Phase 1 would also include converting existing Northside Drive to a multi-use paved trail between the roundabout and the western connection of realigned Northside Drive and existing Northside Drive (see figure II-18).

Lodging and Parking. At the end of Phase 1, Yosemite Lodge would have 249 lodging units, 359 standard parking spaces (including 249 spaces for overnight guests, 75 overlap spaces, 20 spaces for employees, and 15 spaces for maintenance vehicles), and 40 loading/unloading

parking spaces (including 20 registration and 20 drop-off parking spaces). Overnight bus parking and temporary day-visitor bus parking would be the same as described under Alternative 2.

Construction Workers and Equipment. Phase 1 building demolition, construction, utility improvements, and tree removal would require a total of approximately 133,000 person-hours, with a typical peak workforce of approximately 85 to 95 individuals during one year of the construction period, and 35 to 45 individuals during the remaining period. There would be approximately 1,070 truck trips associated with Phase 1 construction and demolition activities. A breakdown of truck trips is provided in table II-1.

Heavy equipment for utility and paving work would include approximately six backhoes, two bulldozers, two graders, six dump trucks, one paving machine, two watering trucks, air compressors, jackhammers, chainsaws, and various powered hand tools and small electric generators. Heavy equipment for building demolition, excavation, and grading for new construction would include approximately four backhoes, one bulldozer, two dump trucks, one watering truck, one small crane truck, air compressors, jackhammers, and various powered hand tools and small electric generators.

Phase 1 construction and demolition would cost approximately $22.0 million.

Phase 2

Demolition. Phase 2 would occur during a 10-year period, from fall 2006 through fall 2016. Phase 2 would include demolition of 40 lodging units (including Juniper and Laurel), the electrical substation, and the search and rescue tent cabins (see figure II-19).

Construction. Phase 2 would include construction of 1 new cottage, 6 new cabins, the new registration building, expanded Camp 4 campsites and facilities, the Indian Cultural Center, and miscellaneous roads and parking lots. In addition, Phase 2 would include renovation of the existing registration building and other Lodge facilities, consistent with the park's architectural guidelines, and renovation of existing Camp 4 (see figure II-20). Traditional structures at the Indian Cultural Center would be constructed using traditional materials and methods when possible, and most work would likely be performed as a community effort by tribal members.

Lodging and Parking. At the end of Phase 2, Yosemite Lodge would have 251 lodging units, 361 standard parking spaces (including 251 spaces for overnight guests, 75 overlap spaces, 20 spaces for employees, and 15 spaces for maintenance vehicles), 40 loading/unloading parking spaces (including 20 registration and 20 drop-off parking spaces), and 15 overnight bus parking spaces. Camp 4 would have a total of 65 campsites and 195 parking spaces.

Construction Workers and Equipment. Phase 2 building demolition, construction, and utility improvements would require a total of approximately 72,500 person-hours, with a typical peak workforce of approximately 75 to 85 individuals during intensive redevelopment activities (likely occurring during a 12-month period), and 30 to 40 individuals during the remaining construction period. There would be approximately 265 truck trips associated with Phase 2 construction and demolition activities. A breakdown of truck trips is provided in table II-1.

Heavy equipment for utility and paving work would include approximately two backhoes, one bulldozer, one grader, two dump trucks, one paving machine, one watering truck, air compressors, jackhammers, chainsaws, and various powered hand tools and small electric

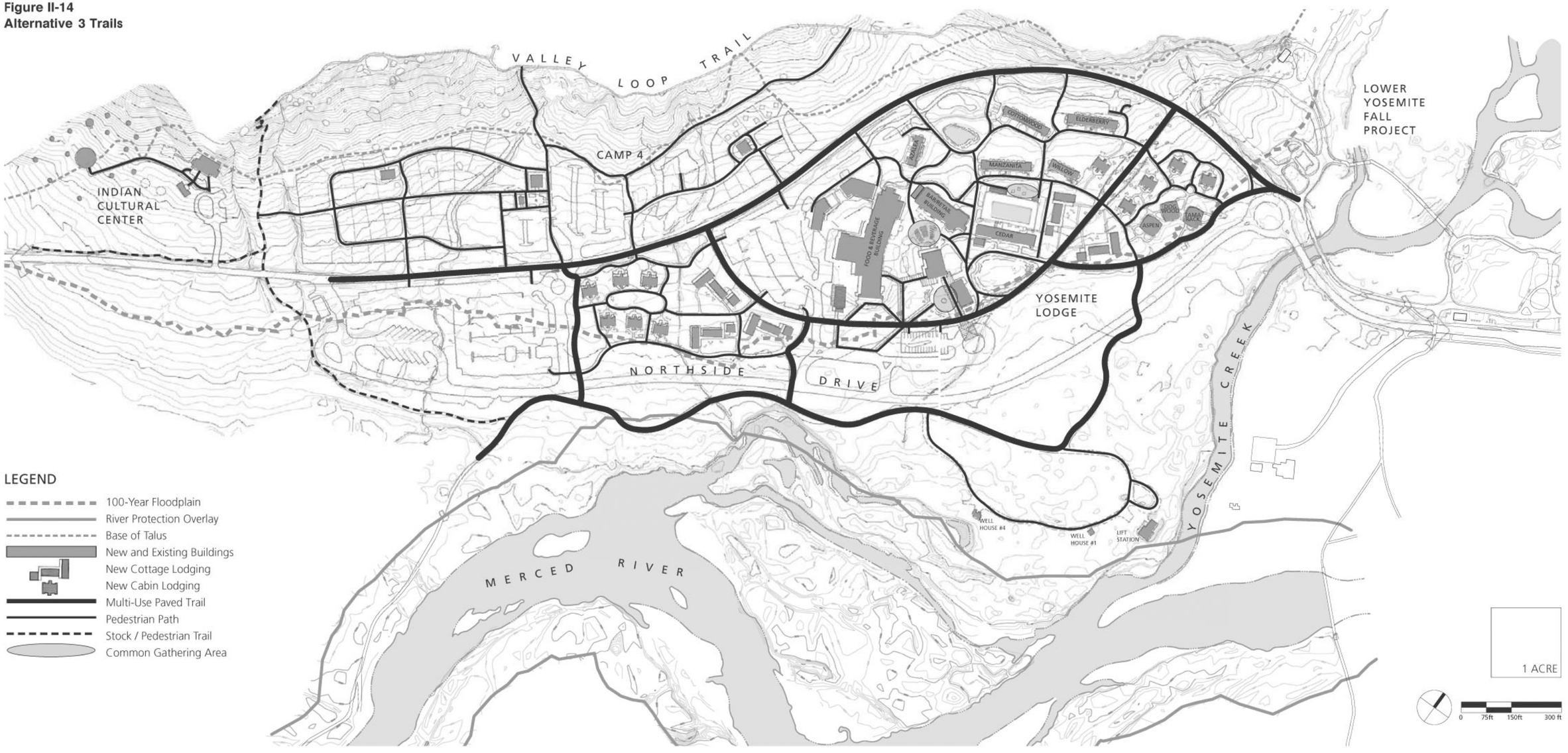
generators. Heavy equipment for building demolition, excavation, and grading for new construction would include approximately four backhoes, one bulldozer, two dump trucks, one watering truck, one small crane truck, air compressors, jackhammers, soil compactors, and various powered hand tools and small electric generators.

Phase 2 construction and demolition would cost approximately $26.4 million.

Phase 3

Phase 3 restoration and revegetation activities would the same as those described for Alternative 2 (see figure II-21).

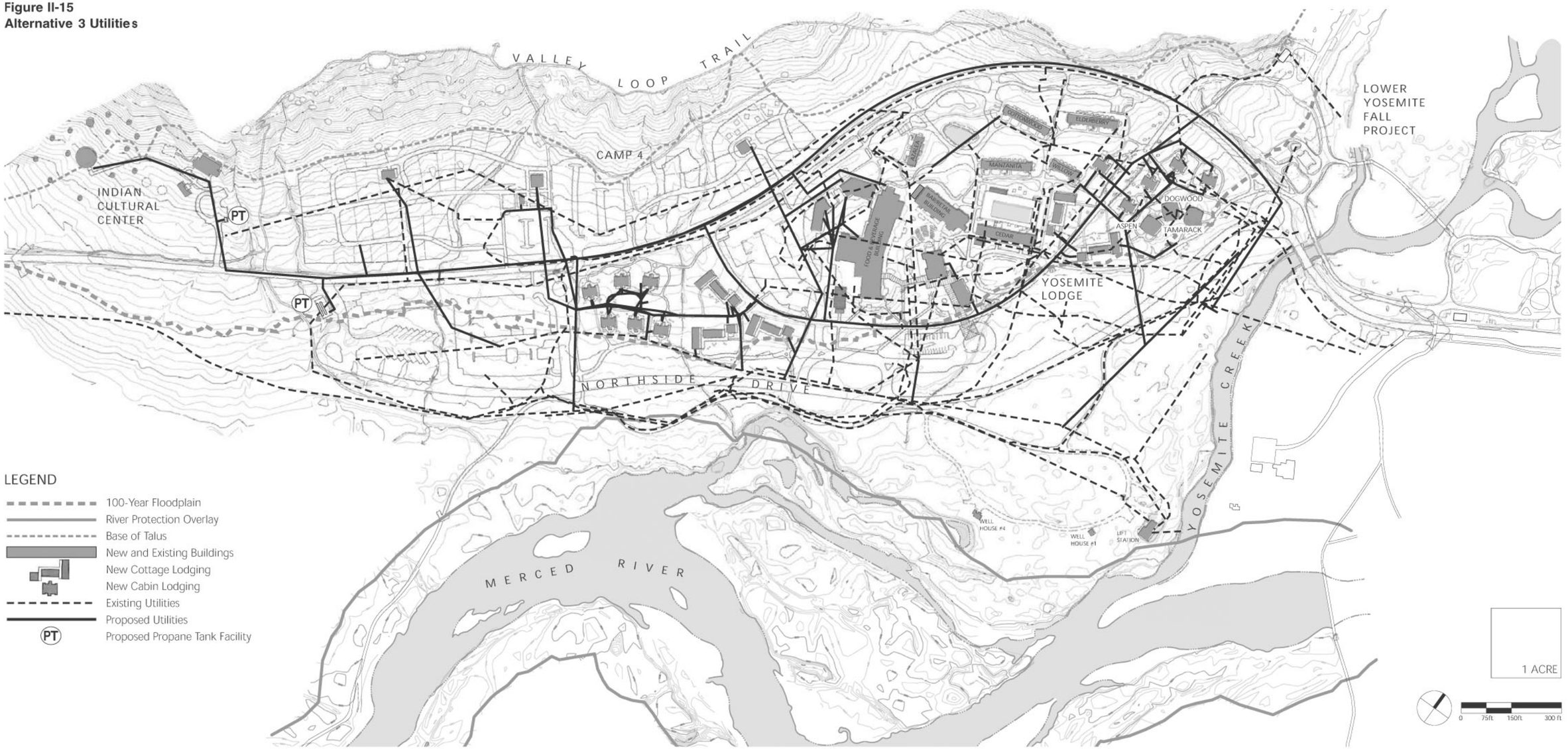
Figure II-14
Alternative 3 Trails



SOURCE: National Park Service and Sasaki Associates Inc .

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

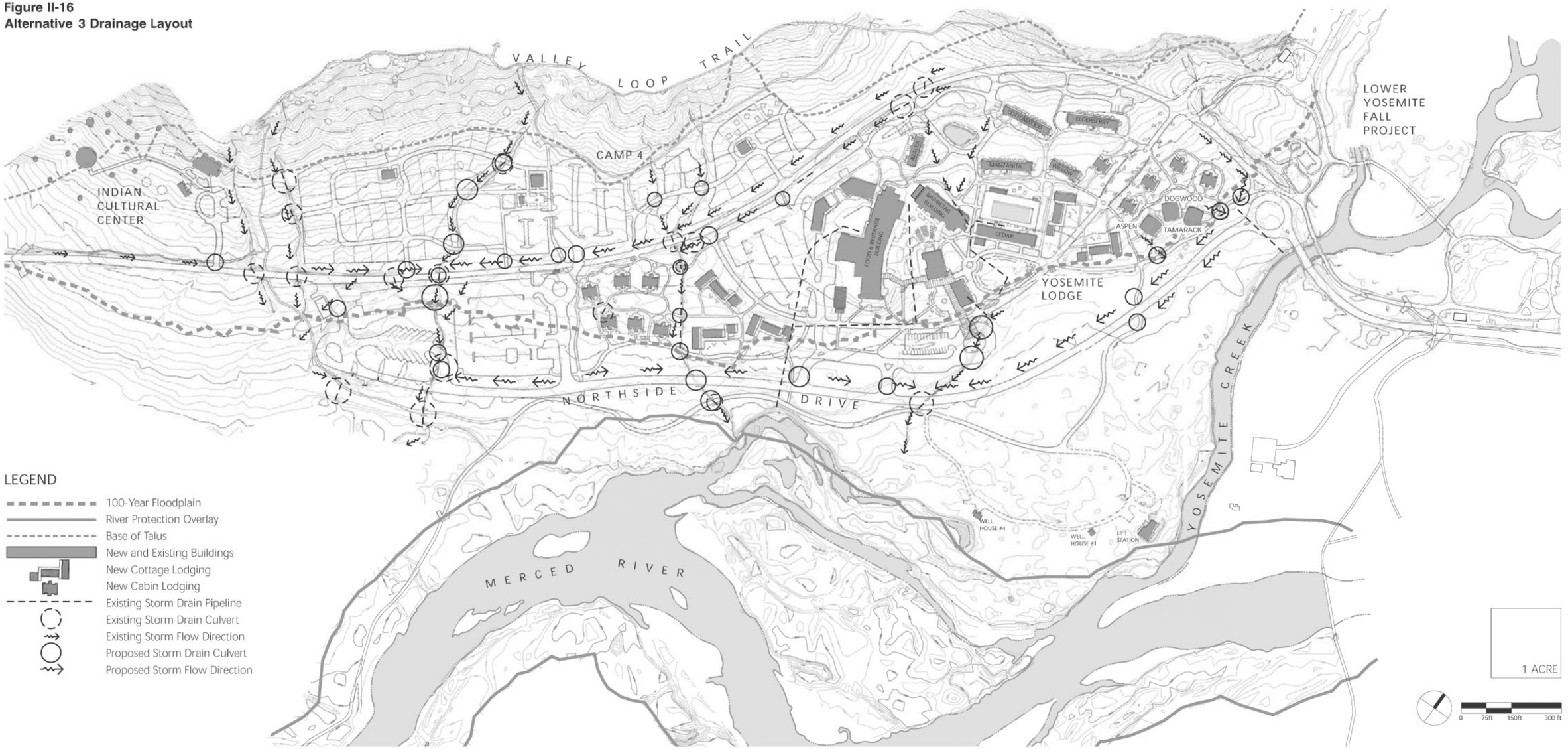
Figure II-15
Alternative 3 Utilities



SOURCE: National Park Service, Provost & Pritchard Inc., and Sasaki Associates Inc.

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

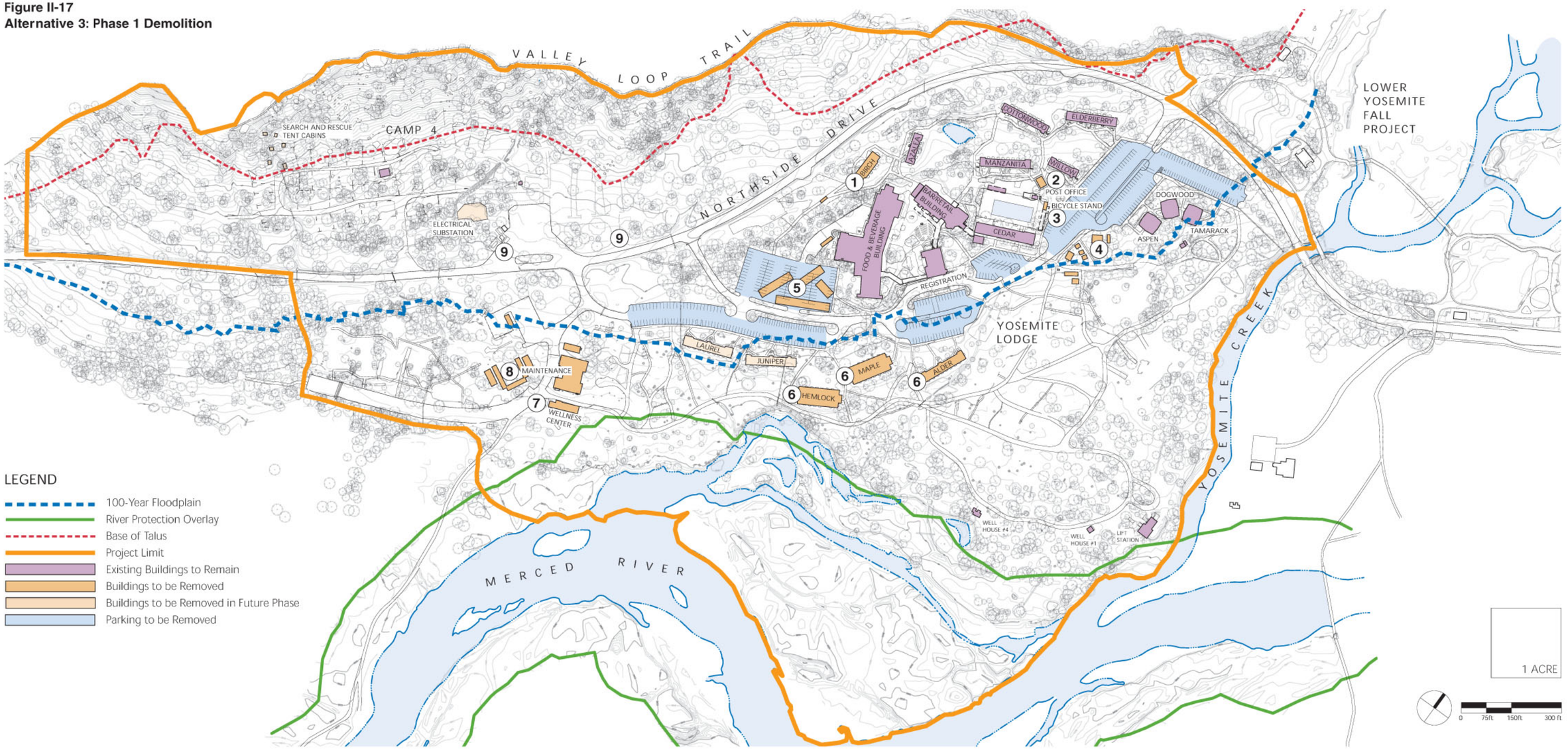
Figure II-16
Alternative 3 Drainage Layout



SOURCE: National Park Service, Provost & Pritchard Inc., and Sasaki Associates Inc.

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

Figure II-17
Alternative 3: Phase 1 Demolition



LEGEND

- 100-Year Floodplain
- River Protection Overlay
- Base of Talus
- Project Limit
- Existing Buildings to Remain
- Buildings to be Removed
- Buildings to be Removed in Future Phase
- Parking to be Removed

1 ACRE

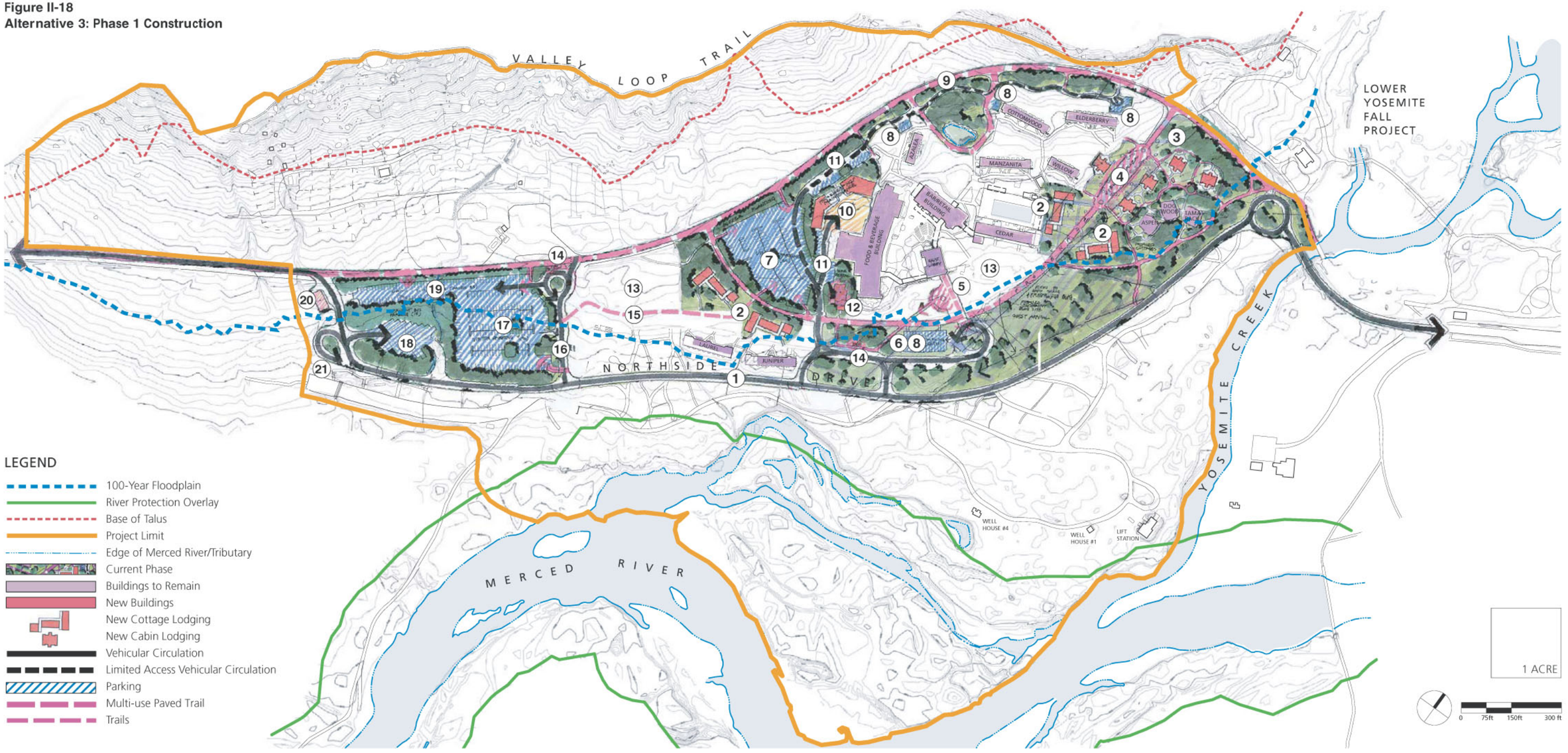
0 75ft 150ft 300 ft

1 Remove Birch Unit
2 Remove Post Office
3 Remove Bicycle Stand
4 Remove Miscellaneous Buildings
5 Remove Employee Housing
6 Remove Alder, Hemlock and Maple Units
7 Remove Wellness Center
8 Remove Maintenance Buildings
9 Remove Camp 4 Parking Lot Ingress / Egress

SOURCE: National Park Service and Sasaki Associates Inc .

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

Figure II-18
Alternative 3: Phase 1 Construction



LEGEND

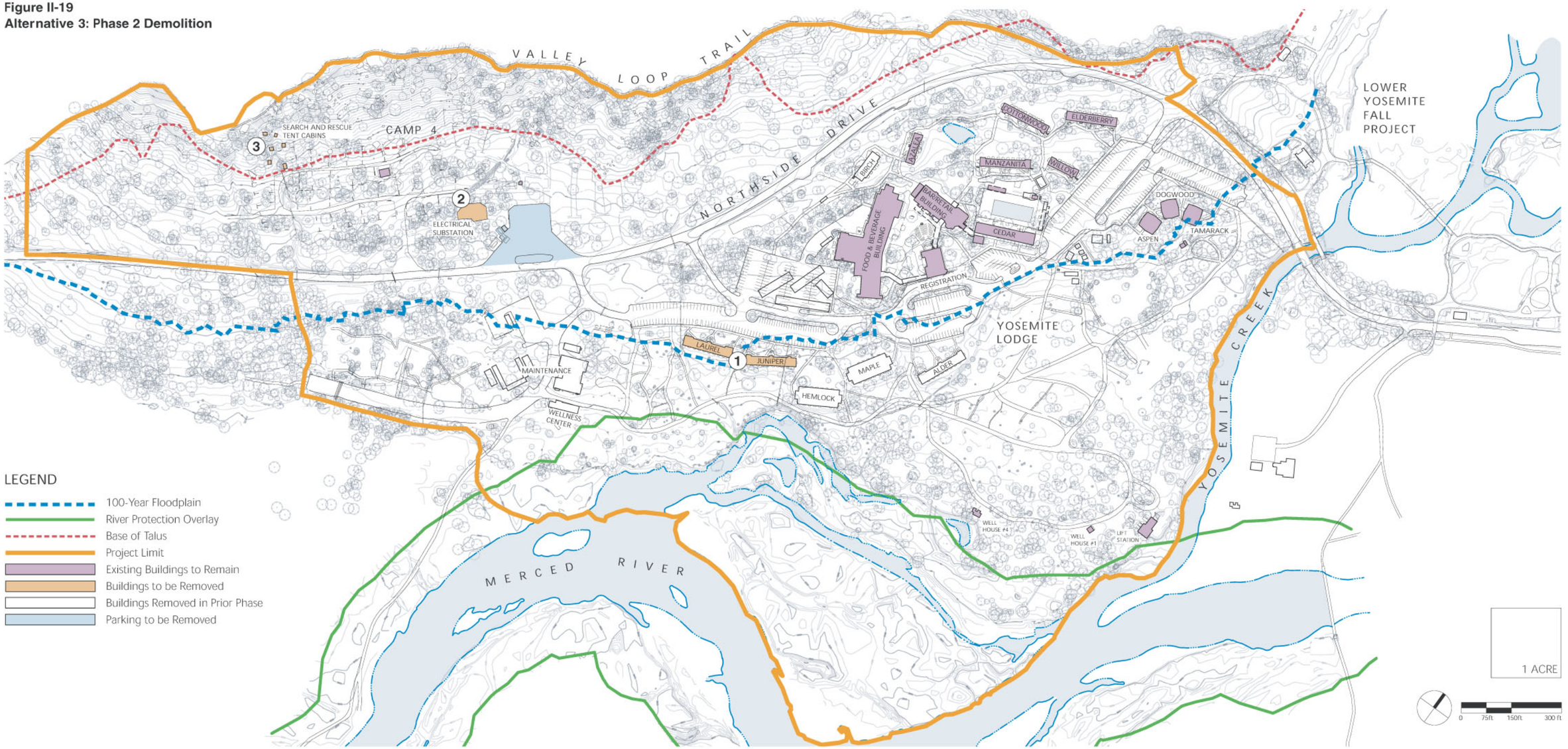
- 100-Year Floodplain
- River Protection Overlay
- Base of Talus
- Project Limit
- Edge of Merced River/Tributary
- Current Phase
- Buildings to Remain
- New Buildings
- New Cottage Lodging
- New Cabin Lodging
- Vehicular Circulation
- Limited Access Vehicular Circulation
- Parking
- Multi-use Paved Trail
- Trails

1 Construct New Northside Drive
2 Construct 4 New Cottages
3 Construct 5 New Cabins
4 Construct Promenade and Viewing Plazas
5 Construct New Registration Parking Lot
6 Construct Entrance/Walkway at Registration Area
7 Construct Central Lodge Guest Parking
8 Construct Drop-off Parking Spaces
9 Convert Old Northside Drive to Multi-use Paved Trail
10 Construct Maintenance Buildings
11 Construct Employee and Maintenance Parking
12 Construct Bicycle Rental Stand
13 Remove Existing Parking and Provide Temporary Vegetation
14 Construct Shuttle Bus Stop
15 Construct Temporary Pedestrian Trail
16 Construct Camp 4 Access Drive
17 Construct Remote Lodge Guest Parking
18 Construct Overnight Bus Parking Lot
19 Construct Interim Day Use Bus Parking
20 Construct Propane Tank Facility
21 Construct Turnaround

SOURCE: National Park Service and Sasaki Associates Inc .

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

Figure II-19
Alternative 3: Phase 2 Demolition



LEGEND

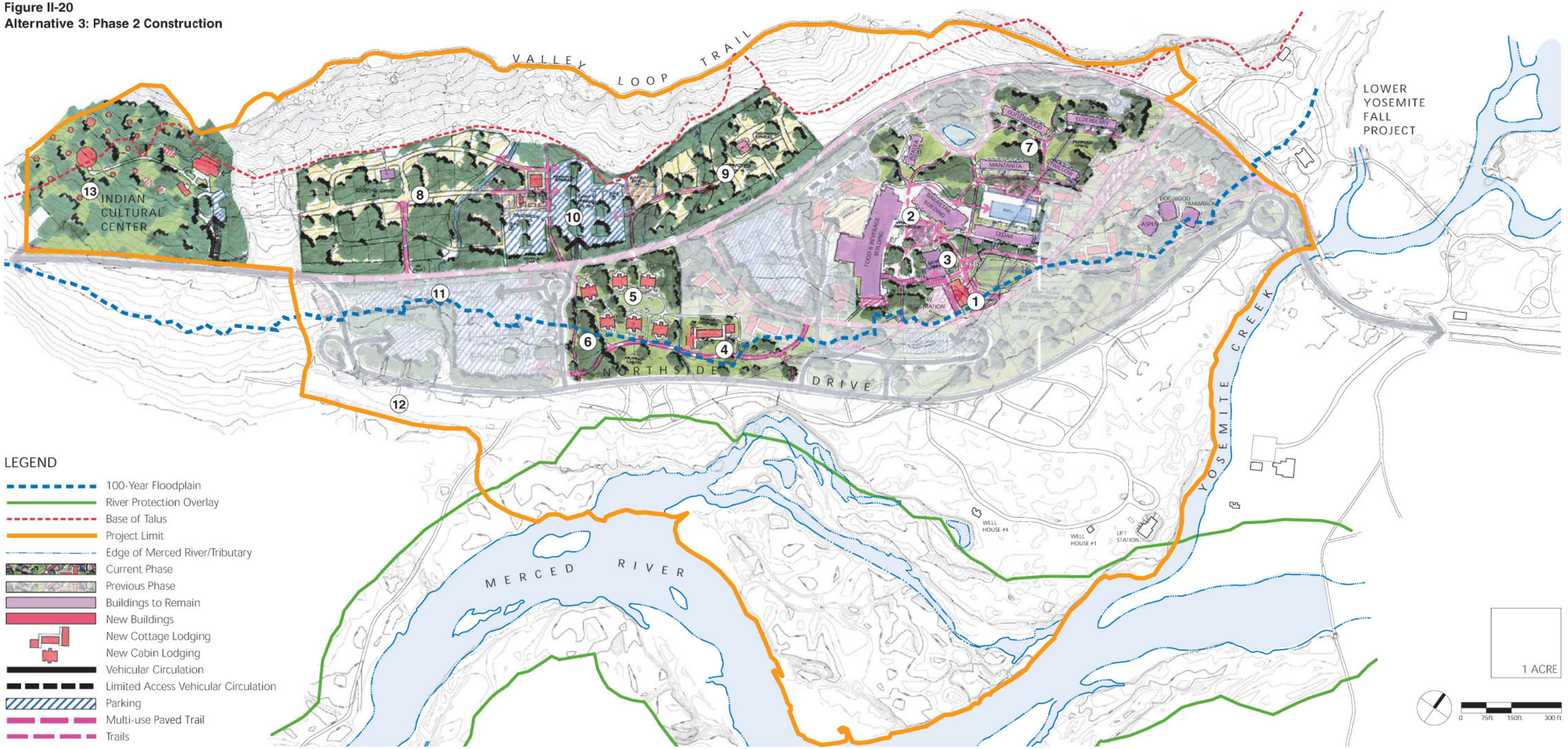
- 100-Year Floodplain
- River Protection Overlay
- Base of Talus
- Project Limit
- Existing Buildings to Remain
- Buildings to be Removed
- Buildings Removed in Prior Phase
- Parking to be Removed

1 Remove Juniper & Laurel
2 Remove Electrical Substation
3 Remove Search and Rescue Tent Cabins

SOURCE: National Park Service and Sasaki Associates Inc.

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

Figure II-20
Alternative 3: Phase 2 Construction



LEGEND

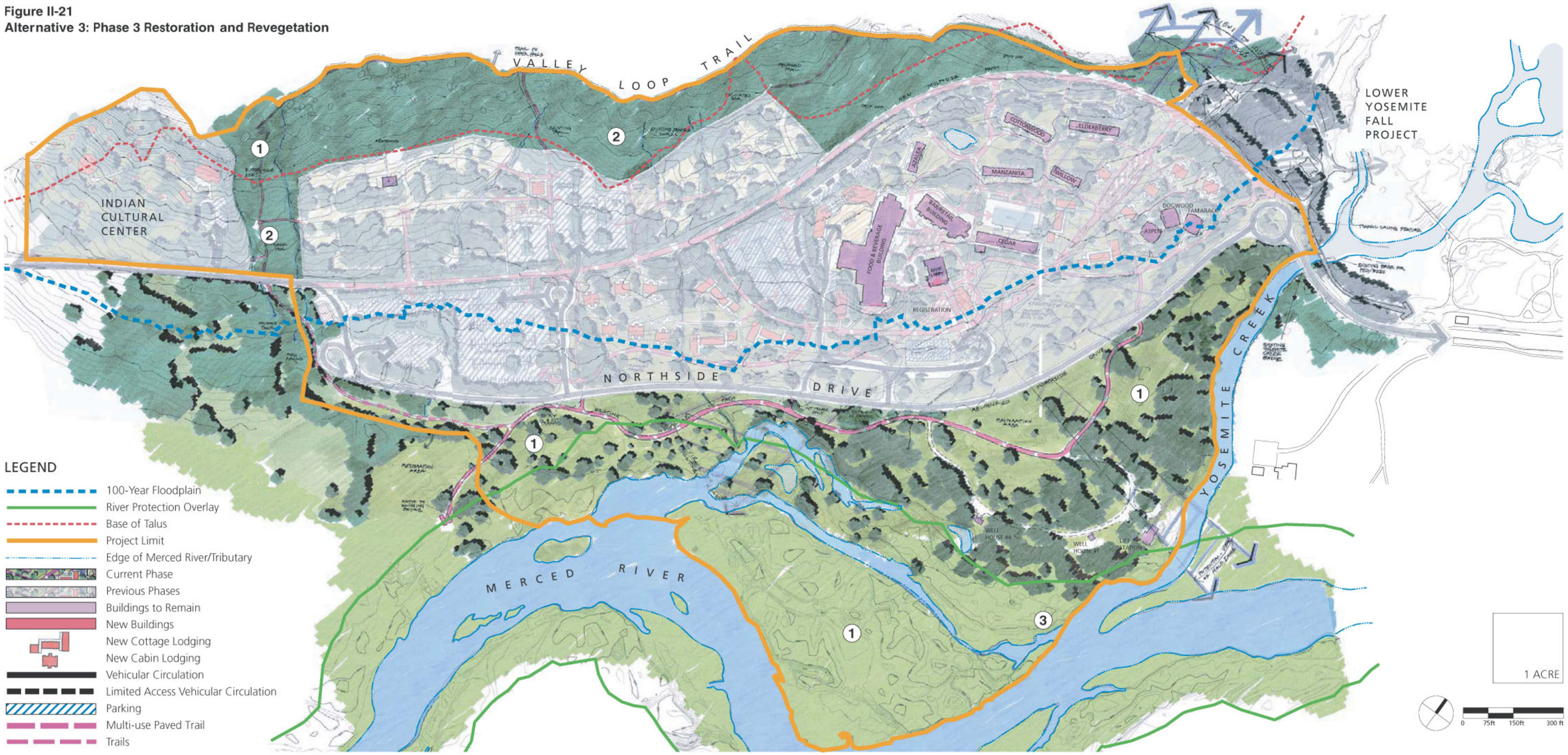
- 100-Year Floodplain
- River Protection Overlay
- Base of Talus
- Project Limit
- Edge of Merced River/Tributary
- Current Phase
- Previous Phase
- Buildings to Remain
- New Buildings
- New Cottage Lodging
- New Cabin Lodging
- Vehicular Circulation
- Limited Access Vehicular Circulation
- Parking
- Multi-use Paved Trail
- Trails

1 Construct New Registration Building
2 Renovate Existing Lodge Buildings and Courtyard
3 Renovate Existing Registration Building for Tour Operations
4 Construct 1 New Cottage
5 Construct 6 New Cabins
6 Implement Improvements to Restoration Area
7 Complete Site Improvements
8 Renovate Existing Camp 4
9 Construct Expanded Camp 4
10 Construct Camp 4 Parking
11 Convert Interim Bus Parking to Camp 4 Parking
12 Remove Existing Paving and Provide Temporary Vegetation
13 Construct Indian Cultural Center Improvements

SOURCE: National Park Service and Sasaki Associates Inc.

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

Figure II-21
Alternative 3: Phase 3 Restoration and Revegetation



1 Implement Improvements to Restoration Area
2 Implement Improvements to Revegetation Area
3 Removal of Diversion Dam

SOURCE: National Park Service and Sasaki Associates Inc.

NOTE: These drawings are conceptual in nature and final site and building elements may vary slightly. Not all features are to scale.

Environmentally Preferable Alternative

The Council on Environmental Quality Regulations implementing the National Environmental Policy Act and the National Park Service National Environmental Policy Act guidelines require that "the alternative or alternatives which were considered to be environmentally preferable" be identified (Council on Environmental Quality Regulations, Section 1505.2). Environmentally preferable is defined as "the alternative that will promote the national environmental policy as expressed in the National Environmental Policy Act's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative that best protects, preserves, and enhances historic, cultural, and natural resources" (Council on Environmental Quality 1981).

Section 101 of the National Environmental Policy Act states that "… it is the continuing responsibility of the Federal Government to … (1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations; (2) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings; (3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences; (4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice; (5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and (6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources." The environmentally preferable alternative for the Yosemite Lodge Area Redevelopment is based on these national environmental policy goals.

Alternative 1 (No Action)

The No Action Alternative represents conditions and management practices as they currently exist for the Yosemite Lodge Area Redevelopment. Although Alternative 1 would include the least change to cultural resources, it would not provide opportunities for cultural continuity, since the National Park Service in partnership with the American Indian Council of Mariposa County would not build the Indian Cultural Center. Alternative 1 would not result in the same level of environmental protection and restoration of natural resources as the action alternatives. Alternative 1 would not fully achieve goals 1, 2, 3, 4, and 5 of Section 101 of the National Environmental Policy Act. Alternative 1 would not fulfill the purpose of and need for the project. Although existing patterns of visitor use would continue, traffic congestion and existing impacts on visitor experience and scenic resources in the project area would not be remedied. Alternative 1 would not fulfill goal 2, because the alternative would not assure safe surroundings; vehicle and pedestrian conflicts on Northside Drive between Yosemite Lodge and the Lower Yosemite Fall area would not be remedied, and portions of Camp 4 would continue to be located within the base of talus zone. Compared to the action alternatives, Alternative 1 would be least effective in attaining goal 3, as described in Section 101, in that it would have the narrowest range of beneficial uses that could occur without degradation of natural and cultural resources in the project area. Because of existing impacts that are not remedied with respect to goals 1, 2, 3, 4, and 5 of Section 101, Alternative 1 would not be the environmentally preferable alternative.

Alternative 2 (Preferred)

This alternative would realize each of the provisions of the national environmental policy goals stated in Section 101. Alternative 2 would fulfill goal 1 by restoring to natural conditions (to the extent practicable) 37.89 acres of the Yosemite Lodge Area Redevelopment site and revegetating the rest of the project area using an applied ecological approach to revegetation. By redesigning Yosemite Lodge to refocus visitors' lodging experience from motel-like to one more connected with and unique to Yosemite National Park, and by redesigning Camp 4 to conform to the natural landscape, Alternative 2 would fulfill goal 2.

Alternative 2 would fulfill goal 3 of the national environmental policy goals by reducing risks to public health and safety by removing structures (i.e., Alder, Hemlock, Juniper, and Maple) from the Merced River floodplain, removing the traffic and pedestrian conflict on Northside Drive between Yosemite Lodge and the Lower Yosemite Fall area, relocating the search and rescue sites outside the base of talus zone, and constructing new facilities that comply with current building standards. Under Alternative 2, Northside Drive would be realigned within the 100-year floodplain, and traffic exiting Yosemite Valley would be rerouted onto the new multi-use paved trail along the northern boundary of the Lodge site during special emergency conditions, such as a large flood event. The proposed multi-use paved trail would be of sufficient width to operate in this capacity during emergencies. In addition, Alternative 2 would develop the Indian Cultural Center at the site of the last-occupied American Indian village in Yosemite Valley. Alternative 2 also would provide a cooking pavilion at Camp 4, a climbing display building to highlight the importance of Camp 4's climbing history, as well as an expanded amphitheater on the Lodge site. These actions would provide a range of beneficial uses in the project area consistent with goal 3.

Alternative 2 would fulfill goals 4 and 5 through revegetation and restoration activities, which include removing a diversion dam and revetments from Yosemite Creek. Removal of these structures would restore natural flow in this area of the creek and return the Merced River 100-year floodplain to near-natural, free-flow conditions. These resource enhancements would achieve a balance between population and resource use, since the restoration activities would occur adjacent to Yosemite Lodge, which is among the most intensely developed sites in Yosemite Valley. In addition, Alternative 2 would implement measures to reduce adverse effects on natural and cultural resources related to construction and operation of the facility (e.g., mitigation measures identified in Appendix C, Mitigation Measures Common to All Action Alternatives), as required under goal 4 of the national environmental policy goals. Under Alternative 2, cultural resources would be managed in accordance with the 1999 Programmatic Agreement.

Consistent with goal 6, Alternative 2 would implement, sustainable technologies designed to minimize impacts on natural resources, as required by the National Park Service's *Guiding Principles of Sustainable Design*. Sustainable principles and technologies incorporated into this alternative include use of recycled materials and installation of energy- and water-efficient features and utilities.

Alternative 3

Alternative 3 would be as effective as Alternative 2 in realizing the provisions of the national environmental policy goals in Section 101 of the National Environmental Policy Act. Alternative 3 would fulfill goal 1 by restoring to natural conditions (to the extent practicable) 37.31 acres of the Yosemite Lodge Area Redevelopment site and revegetating the rest of the project area using an applied ecological approach to revegetation. By redesigning Yosemite Lodge to refocus visitors' lodging experience from motel-like to one more connected with and unique to Yosemite National Park, and by redesigning Camp 4 to conform to the natural landscape, Alternative 3 would fulfill goal 2.

Alternative 3 would fulfill goal 3 of the national environmental policy goals by reducing risks to public health and safety by removing structures (i.e., Alder, Hemlock, Juniper, and Maple) from the Merced River floodplain, removing the traffic and pedestrian conflict on Northside Drive between Yosemite Lodge and the Lower Yosemite Fall area, relocating the search and rescue sites outside the base of talus zone, and constructing new facilities that comply with current building standards. Under Alternative 3, Northside Drive would be realigned within the 100-year floodplain, and traffic exiting Yosemite Valley would be rerouted onto the new multi-use paved trail along the northern boundary of the Lodge site during special emergency conditions, such as a large flood event. The proposed multi-use paved trail would be of sufficient width to operate in this capacity during emergencies. Similar to Alternative 2, Alternative 3 would develop the Indian Cultural Center at the site of the last-occupied American Indian village in Yosemite Valley. Alternative 3 would provide an interior interpretive display space at Yosemite Lodge for changing informational exhibits and would renovate the existing amphitheater at Yosemite Lodge. These actions would provide a range of beneficial uses in the project area consistent with goal 3.

Similar to Alternative 2, Alternative 3 would fulfill goals 4 and 5 through revegetation and restoration activities, which include removing a diversion dam and revetments from Yosemite Creek. Removal of these structures would restore natural flow in this area of the creek and return the Merced River 100-year floodplain to near-natural, free-flow conditions. These resource enhancements would achieve a balance between population and resource use, since the restoration activities would occur adjacent to Yosemite Lodge, which is among the most intensely developed sites in Yosemite Valley. In addition, Alternative 3 would implement measures to reduce adverse effects on natural and cultural resources related to construction and operation of the facility (e.g., mitigation measures identified in Appendix C, Mitigation Measures Common to All Action Alternatives), as required under goal 4 of the national environmental policy goals. Under Alternative 3, cultural resources would be managed in accordance with the 1999 Programmatic Agreement. Under this alternative, impacts to one archeological site would be reduced compared to Alternative 2, which would fulfill goal 4 to a slightly greater degree than Alternative 2.

Consistent with goal 6, Alternative 3 would implement sustainable technologies designed to minimize impacts on natural resources, as required by the National Park Service's *Guiding Principles of Sustainable Design*. Sustainable principles and technologies incorporated into this alternative include use of recycled materials and installation of energy- and water-efficient features and utilities.

Environmentally Preferable Alternative

The National Park Service has determined that the environmentally preferable alternatives are Alternative 2 and Alternative 3. Alternative 2 and Alternative 3 best achieve the six goals prescribed under Section 101 of the National Environmental Policy Act. As described in Chapter IV, Environmental Consequences, Alternative 2 and Alternative 3 have small differences in their environmental impacts on natural and cultural resources, however, on balance both alternatives are considered environmentally preferable. Alternative 2 and Alternative 3 would both (1) fulfill responsibilities of each generation as trustee of the environment for succeeding generations through restoration and revegetation actions; (2) provide a high level of protection of natural and cultural resources while concurrently attaining the widest range of beneficial uses of the environment without degradation; (3) reduce risks to public health and safety; (4) provide aesthetically pleasing surroundings; (5) achieve a balance between population and resource use; and (6) enhance the quality of renewable resources and approaches the maximum attainable recycling of depletable resources.

Actions Considered but Dismissed

For the Yosemite Lodge Area Redevelopment, a reasonable range of alternatives was considered in the *Yosemite Valley Plan*. It is not the objective of this environmental assessment to revisit the range of alternatives in the *Yosemite Valley Plan* for the project area. During the Yosemite Lodge Area Redevelopment planning process, alternative actions were eliminated from detailed study for any one or a combination of the following reasons:

- Does not implement the decisions of the *Yosemite Valley Plan* for the project area
- Does not satisfy guidance criteria, meet project goals, or resolve park planning needs in Yosemite Valley
- Unacceptable environmental, cultural, scenic, visitor experience, or operational impacts would be caused
- Is not technically or economically feasible

Those alternative actions considered but eliminated from detailed study are described below.

Short-term Maximization of Lodging Units During Project Construction

The National Park Service considered maximizing the number of lodging units at Yosemite Lodge during project construction in response to public requests to increase the number of lodging units at Yosemite Lodge. Under this action, the 128 existing lodging units planned for demolition would not be removed until the end of the construction period, resulting in a temporary increase of lodging units. This alternative action was considered but dismissed for the following reasons:

- Does not implement the decisions of the *Yosemite Valley Plan* for the project area. As approved in the *Yosemite Valley Plan*, the ultimate buildout for Yosemite Lodge is specified as 251 lodging units.
- Is not technically or economically feasible. Temporarily maximizing the number of lodging units was not technically feasible due to the site constraints associated with project construction. The area occupied by the existing lodging units slated for demolition was needed early in the construction phasing process so that Northside Drive could be relocated.

Provide Lodge Guest Parking near Aspen, Dogwood, and Tamarack Lodging Units

The National Park Service considered providing Lodge guest parking near the Aspen, Dogwood, and Tamarack lodging units. This alternative action was considered but dismissed for the following reasons:

- Does not satisfy guidance criteria, meet project goals, or resolve park planning needs in Yosemite Valley. Providing guest parking near the Aspen, Dogwood, and Tamarack lodging units would have required an additional roadway accessing Northside Drive west of the proposed roundabout. This option was rejected due to the reductions in traffic level of service on Northside Drive associated with this additional access roadway.

Provide Permanent Lodge Guest Parking near Cottonwood and Elderberry Lodging Units

The National Park Service considered providing permanent Lodge guest parking near the Cottonwood and Elderberry lodging units. This alternative action was considered but dismissed for the following reasons:

- Does not satisfy guidance criteria, meet project goals, or resolve park planning needs in Yosemite Valley. Providing permanent guest parking near the Cottonwood and Elderberry lodging units was dismissed because placing permanent parking spaces along the northeastern perimeter of the Lodge site would have detracted from the pedestrian focus. The National Park Service decided to avoid placing permanent parking along the new multi-use paved trail in this location, and also avoid the extensive tree removal that would be required in this area to accommodate a parking lot.

Provide Subterranean Parking Structure at Yosemite Lodge Site

In an effort to reduce the size of the footprint required for Lodge guest parking, the National Park Service considered developing a subterranean parking structure at the Yosemite Lodge site. This alternative action was considered but dismissed for the following reasons:

- Does not satisfy guidance criteria, meet project goals, or resolve park planning needs in Yosemite Valley. Development of a subterranean parking structure would be out of character with other development in Yosemite Valley and other national parks. The design of the parking structure would require considerable interior space for access ramps and circulation roadways and would not substantially reduce the footprint of the parking area on the Lodge site. In addition, the parking structure would not be consistent with the Yosemite Valley and Yosemite Lodge architectural guidelines.

Consolidate Camp 4 Campsites

The National Park Service considered consolidating 65 Camp 4 campsites in the western end of Camp 4 to reduce the developed footprint of the campground. This alternative action was considered but dismissed for the following reasons:

- Does not implement the decisions of the *Yosemite Valley Plan* for the project area. The approved *Yosemite Valley Plan* called for utilizing the eastern portion of the Camp 4 campground when it identified increasing the capacity of the campground from 37 to 65 campsites.

- Unacceptable environmental, cultural, scenic, visitor experience, or operational impacts would be caused. Consolidating the 65 campsites into half the space identified in the *Yosemite Valley Plan* would result in increased campsite densities that would adversely affect the overall camping experience.

Relocate Search and Rescue Site

The National Park Service considered relocating the search and rescue site from the western end of Camp 4 to a location near the Camp 4 parking lot. This alternative action was considered but dismissed for the following reasons:

- Unacceptable environmental, cultural, scenic, visitor experience, or operational impacts would be caused. Relocating the search and rescue site would have unacceptable operational impacts. Relocating the search and rescue site near the parking lot would place the volunteers near higher activity areas, which is not conducive to rest and recuperation after a search and rescue mission.

Provide Propane Group Campfires

The National Park Service considered providing propane group campfires at Camp 4 to reduce air quality impacts associated with wood fires. This alternative action was considered but dismissed for the following reasons:

- Is not technically or economically feasible. Propane group campfires would be cost-prohibitive with respect to installation and maintenance.

Provide Dispersed Gear Storage Lockers Throughout Camp 4

The National Park Service considered providing up to 65 gear storage lockers throughout the Camp 4 area. This alternative action was considered but dismissed for the following reasons:

- Unacceptable environmental, cultural, scenic, visitor experience, or operational impacts would be caused. Dispersing up to 65 gear storage lockers throughout the Camp 4 area would substantially increase the built features scattered throughout the site and would create visual intrusions into the natural Camp 4 landscape.
- Is not technically or economically feasible. Dispersed gear storage lockers would be more difficult to maintain and monitor for security purposes than centralized gear storage lockers, as proposed under Alternative 2.

Provide Shuttle Bus Stop at Indian Cultural Center

The National Park Service considered providing a shuttle bus stop at the Indian Cultural Center. This alternative action was considered but dismissed for the following reasons:

- Unacceptable environmental, cultural, scenic, visitor experience, or operational impacts would be caused. Providing a shuttle bus stop at the Indian Cultural Center would have unacceptable cultural impacts, as it would disrupt the semiprivate nature of the facility during religious ceremonies. In addition, provision of a shuttle bus stop at the Indian Cultural Center is not necessary, because the Camp 4 shuttle bus stop would be located within 1,000 feet of the Indian Cultural Center.

Do Not Relocate Northside Drive

During the public scoping process for this environmental assessment, it was suggested that Northside Drive not be relocated south of the Lodge, as identified in the *Yosemite Valley Plan*. This alternative action was considered but dismissed for the following reasons:

- Does not implement the decisions of the *Yosemite Valley Plan* for the project area. As approved in the *Yosemite Valley Plan*, the current alignment of Northside Drive would be relocated south of the Lodge to reduce conflicts between vehicles and pedestrians and to provide safer pedestrian access between the Lodge and Lower Yosemite Fall area.
- Does not satisfy guidance criteria, meet project goals, or resolve park planning needs in Yosemite Valley. If Northside Drive were not relocated, project goals to reduce traffic congestion by improving the vehicle and pedestrian interface between Yosemite Lodge and Lower Yosemite Fall would not be met.

Terminate Northside Drive at Yosemite Lodge Site

The National Park Service considered including in the Yosemite Lodge Area Redevelopment the termination of Northside Drive at Yosemite Lodge, as identified in the *Yosemite Valley Plan*. This alternative action was considered but dismissed for the following reasons:

- Is not technically or economically feasible. The termination of Northside Drive is identified in the *Yosemite Valley Plan*, and the National Park Service intends to terminate Northside Drive at Yosemite Lodge as part of the traveler information and traffic management system planning effort. The National Park Service decided that including the termination of Northside Drive at the Lodge site as part of the Yosemite Lodge Area Redevelopment project was technically infeasible. The termination of Northside Drive is closely tied with the larger Yosemite Valley transportation planning issues, including consolidating day-visitor parking in Yosemite Valley and three out-of-Valley parking areas, expanding shuttle bus operation, and making Southside Drive a two-way road. The traveler information and traffic management system project identified in the *Yosemite Valley Plan* will address these Valleywide transportation planning issues, and the termination of Northside Drive at Yosemite Lodge will be included among them.

Construct a New Motor Vehicle Bridge Across Yosemite Creek and Remove the Yosemite Creek Pedestrian/Bicycle Bridge

The National Park Service considered including in the Yosemite Lodge Area Redevelopment the construction of a new motor vehicle bridge across Yosemite Creek and the removal of the Yosemite Creek Pedestrian/Bicycle Bridge, as identified in the *Yosemite Valley Plan*. This alternative action was considered but dismissed for the following reasons:

- The National Park Service received new information regarding the presence of an American Indian traditional use site east of Yosemite Creek that would be affected by the proposed bridge roadway approach. The National Park Service determined that additional study was needed to ascertain the significance of the traditional gathering site and is currently conducting a Valleywide traditional use study. Northside Drive would be safely realigned through the inclusion of a roundabout on the west side of Yosemite Creek. In the absence of a new bridge across Yosemite Creek, the Yosemite Creek Pedestrian/Bicycle Bridge continued to be needed to convey pedestrians and bicyclists across the creek in this area. The National Park Service will determine whether construction of a new bridge across Yosemite Creek and

removal of the Yosemite Creek Pedestrian/Bicycle Bridge is appropriate as part of the traveler information and traffic management system planning effort.

Install the Propane Tank Farm Underground

The National Park Service considered installing the propane tank farms underground to avoid adverse scenic impacts associated with views of the tanks. This alternative action was considered but dismissed for the following reasons:

- Unacceptable environmental, cultural, scenic, visitor experience, or operational impacts would be caused. The National Park Service maintenance division indicated that underground propane tanks are considerably more difficult to maintain.
- Is not technically or economically feasible. The installation of below-ground propane tanks would be substantially more expensive than above-ground propane tanks.

Comparison of Alternatives

This section compares the key features of the alternatives and summarizes the potential environmental consequences. Table II-1 identifies the key components of the alternatives proposed for the Yosemite Lodge Area Redevelopment and assesses whether the alternatives fulfill the purpose of and need for the project. Table II-2 summarizes and compares the potential environmental consequences associated with each alternative. Potential environmental consequences are analyzed in more detail in Chapter IV, Environmental Consequences.

Table II-1
Alternatives Comparison Table

Alternative Component	Alternative 1: No Action	Alternative 2 (Preferred)	Alternative 3
YOSEMITE LODGE			
Lodge Character	■ The existing motel-like lodge experience would be retained	■ Design Yosemite Lodge to refocus visitors' lodging experience from motel-like to one more connected to and unique to Yosemite National Park	■ Same as Alternative 2
Registration Building	■ The existing lobby and registration building would be retained ■ The semicircular entry drive providing temporary parking for registering Lodge guests and pick-up/drop-off space for tour buses and shuttle buses would be retained	■ Construct a new registration building ■ Adaptively reuse existing registration building ■ Redesign vehicular and bus approaches to the new registration building	■ Same as Alternative 2
Lodge Guest Rooms			
New lodging	■ No new lodging would be provided	■ Change lodging types from 245 existing midscale units to 117 economy and 134 midscale units (251 total) ■ Construct 5 two-story cottages (90 units) of similar character to the Pine and Oak cottages ■ Construct 11 four-plex, one-story cabin units (44 units) ■ One-story units grouped together; two-story units interspersed with existing two-story buildings	■ Same as Alternative 2, except new one-story and two-story buildings interspersed together on the site
Retained lodging	■ A total of 245 midscale motel and cottage rooms with bath would be retained	■ Retain 117 existing lodging units	■ Same as Alternative 2
Lodging removed	■ No lodging would be removed	■ Remove 128 existing lodging units	■ Same as Alternative 2
Lodge Common Facilities	■ Food and retail services at Yosemite Lodge would remain as they are at present, with periodic facility upgrades within the existing footprint	■ Three restaurants, Nature Shop, and snack bar remain unchanged ■ Redesign Mountain Room Bar into a public lobby and lounge space ■ Improve Cliff Room ■ Permanently reduce main gift store to the winter size	■ Same as Alternative 2, except the new bicycle stand would be provided near the Lodge shuttle bus stop

Table II-1 (Continued)
Alternatives Comparison Table

Alternative Component	Alternative 1: No Action	Alternative 2 (Preferred)	Alternative 3
Lodge Common Facilities (cont.)		■ Remove post office building ■ Provide a new bicycle rental stand near the multi-use paved trail. Bicycle racks dispersed throughout the Lodge site	
Lodge Guest Parking	■ 464 total parking spaces ■ 245 overnight parking spaces ■ 219 day-visitor parking spaces	■ 361 standard parking spaces ■ Overnight. 251 parking spaces for overnight guests ■ Overlap. 75 parking spaces for overnight guests as overlap spaces ■ Employee/Maintenance. 20 spaces for employees and 15 spaces for maintenance vehicles ■ 40 loading/unloading spaces ■ Registration. 20 temporary registration parking spaces ■ Drop-off. 20 loading/unloading spaces ■ Disabled. An appropriate number of disabled-access parking spaces, consistent with federal accessibility regulations ■ Centralized parking configuration	■ Same number and type of Lodge guest parking spaces as under Alternative 2 ■ Remote parking configuration
Typical Distances to Rooms from Parking Areas[2]	■ Typical distance from drop-off to room: Not applicable ■ Typical distance from parking to room: 150 to 600 linear feet ■ Extreme distance from parking to room: 2,040 linear feet	■ Typical distance from drop-off to room: 10 to 500 linear feet ■ Typical distance from parking to room: 300 to 1,320 linear feet ■ Extreme distance from parking to room: 1,830 linear feet	■ Typical distance from drop-off to room: 10 to 500 linear feet ■ Typical distance from parking to room: 240 to 2,070 linear feet ■ Extreme distance from parking to room: 2,530 linear feet
Overnight Bus Parking	■ 15 overnight tour bus parking spaces would continue to be provided at Yosemite Lodge	■ Same as Alternative 1	■ Same as Alternative 1

[2] The typical distance from drop-off to room is measured from a central point in the drop-off area to a central area within a cluster of lodging units. The typical distance from parking to room is similarly measured from a central point in a parking lot. The extreme distance from parking to room is the distance between the outermost space in a parking lot and the outermost room in the lodge unit farthest from the parking lot.

Table II-1 (Continued)
Alternatives Comparison Table

Alternative Component	Alternative 1: No Action	Alternative 2 (Preferred)	Alternative 3
Housekeeping/Maintenance/ Storage	▪ The maintenance/housekeeping facility damaged by January 1997 flood would not be replaced ▪ Housekeeping and maintenance facilities at the Lodge would remain in their current capacity and locations	• Construct a new housekeeping/maintenance building behind the cafeteria and restaurant to replace the facilities damaged by flooding • Incorporate auxiliary linen collection and distribution units into the new cottages, and construct free-standing linen storage buildings for the new cabins • Provide sufficient space for housekeeping and maintenance functions to accommodate Lodge operations	• Same as Alternative 2
Common Gathering Areas	▪ The amphitheater area and swimming pool would continue to be the primary common gathering area (see below)	▪ Provide climbing display building on the Camp 4 site ▪ Provide new common gathering area at existing amphitheater area ▪ Swimming pool would continue to serve as a common gathering area ▪ Provide common spaces among lodging units	▪ Provide interior interpretive display space at the Lodge for changeable exhibits, such as climbing history, Yosemite Indian cultural history, or U.S. Army park administration history exhibits ▪ Swimming pool would continue to serve as a common gathering area ▪ Provide common spaces among lodging units
Amphitheater	▪ The amphitheater at Yosemite Lodge would remain in its current location and condition, accommodating approximately 150 to 200 individuals	▪ Relocate outdoor amphitheater to a new location for larger capacity (300 to 350 individuals), stronger connection with the outdoor experience, and oriented toward Yosemite Falls ▪ Provide fire circle for evening interpretation activities	▪ Improve existing outdoor amphitheater (accommodating 150 to 200 individuals) and continue to use primarily for evening interpretive programs, group meetings, seminars, and other special functions
Viewing Plaza	▪ Not applicable	▪ Create two smaller scale viewing plazas as informal gathering areas for impromptu seating, viewing Yosemite Falls, etc.	▪ Same as Alternative 2, except one larger-scale viewing plaza would be provided
Promenade	▪ The pedestrian and bicycle paths at Yosemite Lodge would remain in their current locations and condition	▪ Provide new major pedestrian promenade through Lodge site	▪ Same as Alternative 2

Table II-1 (Continued)
Alternatives Comparison Table

Alternative Component	Alternative 1: No Action	Alternative 2 (Preferred)	Alternative 3
Employee Housing	■ The temporary, modular housing units (82 beds) that were established to offset housing lost during the January 1997 flood would remain at their current locations. The Yosemite Lodge cabins (8 beds) would continue to be used for employee housing.	■ Remove modular housing (82 beds) and cabins (8 beds) ■ Relocate employee housing consistent with the *Yosemite Valley Plan*	■ Same as Alternative 2
Wellness Center	■ The Wellness Center would be retained	■ Relocate Wellness Center to Curry Village	■ Same as Alternative 2
Refurbishment of Lodge Facilities	■ The exteriors of existing structures would not be refurbished to make the buildings consistent with the park's architectural guidelines	■ Provide exterior refurbishing of existing structures to make them consistent with the park's architectural guidelines	■ Same as Alternative 2
CAMP 4			
Registration Kiosk	■ The registration kiosk would continue to be in its current location and condition	• Relocate historic building to serve as Camp 4 registration kiosk, designed to accommodate two rangers, a secure money counting room, window overhang to shelter public, and exterior information posting area	■ Same as Alternative 2
Camp 4 Campsites	■ The existing 37 walk-in campsites would be retained at Camp 4	■ Camp would continue to be managed as a first-come, first-served campground with up to six individuals per campsite ■ Provide 65 campsites, including 62 campsites for the general public and 3 search and rescue campsites ■ Remove five sites west of the intermittent creek to provide a buffer for the Indian Cultural Center ■ Retain/redesign 32 campsites ■ Construct 33 campsites east of the present campground core ■ Ensure new sites are compatible with site character and important historic features are retained ■ Provide one fire ring for every two campsites	■ Same as Alternative 2, except provide one fire ring for every campsite

Table II-1 (Continued)
Alternatives Comparison Table

Alternative Component	Alternative 1: No Action	Alternative 2 (Preferred)	Alternative 3
Search and Rescue Sites	▪ There would be no changes to the search and rescue site, located at the western side of Camp 4. The site would continue to include nine tent cabins for nine search and rescue individuals	▪ Provide 3 camp sites (as noted above) for 16 search and rescue personnel ▪ Relocate search and rescue area to eastern end of new Camp 4 expansion ▪ Provide a total of 8 tent cabins with 2 beds per tent ▪ Provide individual lockable storage areas for search and rescue members in the restroom building	▪ Same as Alternative 2
Common Facilities	▪ There would be no modifications to the existing Camp 4 amenities ▪ Existing Camp 4 common facilities would continue to include one restroom building with one outdoor sink to wash dishes/laundry, and one information kiosk ▪ Facilities include 14 toilets and 0 showers would be provided	▪ Provide 3 restroom facilities total (38 toilet stalls and 12 showers), two restroom facilities located in the center of the camping areas, one shower/restroom facility located near the existing parking lot (on the new side of Camp 4) ▪ Provide shared toilet facilities for trail day visitors at centralized facility ▪ Provide one new common cooking pavilion with a total of four cold-water utility sinks (with grease trap); accommodate up to 50 individuals at picnic tables under pavilion roof; provide group fire ring in pavilion ▪ Provide up to 65 gear storage lockers in centralized areas incorporated into existing buildings ▪ Provide three food lockers per site ▪ Provide secure storage for up to 130 bicycles at several locations at Camp 4	▪ Provide 3 restroom facilities total (38 toilet stalls and 12 showers), restroom facility located in western Camp 4, restroom and shower facilities located near the parking lot and in eastern Camp 4 ▪ Provide shared toilet facilities for trail day visitors at centralized facility ▪ Provide three food lockers per site ▪ Provide secure storage for up to 130 bicycles at several locations at Camp 4
Climbing Display Building	▪ Not applicable	▪ Provide stand-alone climbing display building on the Camp 4 site near the shuttle drop-off location	▪ Not applicable. Provide interior interpretive display space for changeable exhibits (such as climbing history, Yosemite Indian cultural history, or U.S. Army park administration history) at Yosemite Lodge.

Table II-1 (Continued)
Alternatives Comparison Table

Alternative Component	Alternative 1: No Action	Alternative 2 (Preferred)	Alternative 3
Camp 4 Parking	▪ Existing Camp 4 dirt parking lot accommodating up to 111 vehicles would be retained	▪ Provide a total of 195 parking spaces for Camp 4 (3 spaces per campsite) ▪ Provide paved, black surface parking lot on the Camp 4 and Lodge site	▪ Provide a total of 195 parking spaces for Camp 4 (3 spaces per campsite) ▪ Provide an unpaved parking lot surface on the Camp 4 site, and a paved, black surface parking lot on the Lodge site
Electrical Substation	▪ The substation would remain in place	▪ Remove electrical substation at Camp 4	▪ Same as Alternative 2
NORTHSIDE DRIVE/BRIDGES			
Northside Drive	▪ Northside Drive would remain two-way from Yosemite Village to the Lodge, and one-way westbound from the Lodge to Pohono Bridge ▪ Pedestrian and bicycle crossings between Yosemite Lodge and Yosemite Falls would remain hazardous to pedestrians/bicyclists and continue to interrupt the flow of traffic along Northside Drive in the vicinity of Yosemite Lodge	▪ Reroute Northside Drive around the south side of the Lodge using a roundabout to reduce conflicts between vehicles and pedestrians and to provide safer pedestrian access between the Lodge and Yosemite Falls ▪ Convert existing Northside Drive from the roundabout to the western connection of realigned Northside Drive and existing Northside Drive to a multi-use paved trail ▪ Make westbound Northside Drive a one-way road after the last traffic turn-around on the Lodge site; on occasion allow two-way, limited traffic on Northside Drive to the Indian Cultural Center for special events	▪ Same as Alternative 2
Bridges	▪ There would be no changes to the Yosemite Creek Bridge and Yosemite Creek Pedestrian/Bicycle Bridge in the Yosemite Lodge area	▪ Same as Alternative 1	▪ Same as Alternative 1
PROJECT-WIDE FEATURES			
Trails	▪ The pedestrian and bicycle paths and stock trails at the project site would remain in their current locations and condition ▪ Site trails would continue to be uncoordinated and have inadequate directional signs ▪ Alternative 1 provides 26,150 linear feet of trails, including 800 linear feet of multi-use paved trails, 23,100 linear feet of pedestrian trails, and 2,250 linear feet of hiker/stock trails	▪ Convert existing Northside Drive between the roundabout and the western connection of realigned Northside Drive and existing Northside Drive to a multi-use paved trail that would permit emergency vehicle access ▪ Develop a promenade on the Lodge site to form the central pedestrian corridor, and connect the main pedestrian entrance to the Lower Yosemite Fall area ▪ Provide improvements to the existing multi-use path south of the Lodge site, including improved connections to Swinging Bridge	▪ Same as Alternative 2, except the Valley Loop Trail and stock trail would be relocated to the west side of the existing intermittent drainage, and internal pathways on the Lodge site would have minor differences reflecting the differences in site design ▪ Provides 28,500 linear feet of trails, including 9,150 linear feet of multi-use paths, 17,050 linear feet of pedestrian trails, and 2,300 linear feet of hiker/stock trails

Table II-1 (Continued)
Alternatives Comparison Table

Alternative Component	Alternative 1: No Action	Alternative 2 (Preferred)	Alternative 3
Trails (cont.)		▪ Provide improved wayfinding and interpretive signs, including for the Yosemite Falls Trail ▪ Relocate the Valley Loop Trail and stock trail to the western edge of Camp 4 on the east side of the existing intermittent drainage ▪ Provides 28,250 linear feet of trails, including 9,350 linear feet of multi-use paths, 16,550 linear feet of pedestrian trails, and 2,350 linear feet of hiker/stock trails	
Shuttle Bus Stop	▪ There would be no modifications or improvements to shuttle bus stops associated with this alternative	▪ Provide shuttle bus stops at Yosemite Lodge registration area and Camp 4, including shuttle bus shelters	▪ Same as Alternative 2
Utilities	▪ There would be no modifications or improvements to site utilities associated with this alternative ▪ The existing site has approximately 18 storm drain culverts	▪ Provide upgraded utilities and new routings as required for new building sites ▪ Remove approximately 3,045 linear feet of utilities and abandon in place 9,000 linear feet of utilities ▪ Provide 2 propane tank farms, 1 to service the Lodge and Camp 4 and 1 for the Indian Cultural Center; relocate the tank farm on the Lodge site at the western end of the site north of realigned Northside Drive ▪ Provide approximately 31 new storm drain culverts	▪ Same as Alternative 2, except approximately 3,345 linear feet of utilities would be removed and 8,775 linear feet of utilities would be abandoned in place, and the propane tank farm on the Lodge site would be located south of realigned Northside Drive
Lighting	▪ There would be no modifications or improvements to site or pathway lighting associated with this alternative	▪ Provide new exterior site lighting following criteria established by the Yosemite Valley Architectural Guidelines	▪ Same as Alternative 2
Restoration	▪ The project site would not be restored to natural conditions, nor would the site of the former gas station at Yosemite Lodge	• Restore three areas of Yosemite Lodge Area Redevelopment site, approximately 37.89 acres	▪ Restore three areas of Yosemite Lodge Area Redevelopment site, approximately 37.31 acres
Revegetation	▪ There would be no modifications or improvements to site landscaping associated with this alternative	▪ Re-establish and enhance existing and historic vegetation communities within the project area using an applied ecological approach to revegetation that emulates natural vegetation succession, native plant community structure, and species composition	▪ Same as Alternative 2

Table II-1 (Continued)
Alternatives Comparison Table

Alternative Component	Alternative 1: No Action	Alternative 2 (Preferred)	Alternative 3
Tree Management	■ 4,662 total trees ■ 0 trees to be removed	■ 3,603 trees ■ 1,059 trees to be removed, including 641 trees to accommodate development, 24 hazard trees, 100 trees to maintain view corridors, and 294 trees for forest management	■ 3,626 trees ■ 1,036 trees to be removed, including 618 trees to accommodate development, 24 hazard trees, 100 trees to maintain view corridors, and 294 trees for forest management
Wetlands	■ 16.28 acres of waters of the U.S. on project site	■ 0.43 acres of waters of the U.S. disturbed	■ 0.41 acres of waters of the U.S. disturbed
Pervious and Impervious Surfaces[3]	Within Project Area ■ Pervious Surfaces: 3,651,500 square feet ■ Semipervious surfaces: 278,600 square feet ■ Impervious surfaces: 738,500 square feet Within 100-year Floodplain ■ Semipervious surfaces: 93,500 square feet ■ Impervious surfaces: 151,600 square feet	Within Project Area ■ Pervious Surfaces: 3,513,300 square feet ■ Semipervious surfaces: 225,600 square feet ■ Impervious surfaces: 929,500 square feet Within 100-year Floodplain ■ Semipervious surfaces: 21,200 square feet ■ Impervious surfaces: 246,000 square feet	Within Project Area ■ Pervious Surfaces: 3,503,600 square feet ■ Semipervious surfaces: 234,500 square feet ■ Impervious surfaces: 930,300 square feet Within 100-year Floodplain ■ Semipervious surfaces: 22,700 square feet ■ Impervious surfaces: 266,100 square feet
CONSTRUCTION PHASING			
Phase 1: Spring 2004 – Summer 2006	■ Not applicable	■ Demolition of Birch, Alder, Hemlock, and Maple, employee housing, maintenance buildings, the Wellness Center, the post office, bicycle rental stand, and other miscellaneous buildings ■ Construction of five new cottages, realigned Northside Drive, the promenade and viewing plazas, the registration parking lot and walkway to existing registration, maintenance buildings, propane tank facility, bicycle rental stand, Lodge shuttle bus stop, parking lots, and miscellaneous roads	■ Demolition of Birch, Alder, Hemlock, and Maple, employee housing, maintenance buildings, the Wellness Center, the post office, bicycle rental stand, and other miscellaneous buildings ■ Construction of four new cottages, five new cabins, realigned Northside Drive, the promenade and viewing plazas, the registration parking lot and walkway to existing registration, maintenance buildings, propane tank facility, bicycle rental stand, lodge shuttle bus stop, parking lots, and miscellaneous drives

[3] Pervious surfaces allow moisture penetration into the ground and include natural areas and restored/revegetated areas. Semipervious surfaces allow partial penetration by moisture and include decomposed granite paving, dirt trails, and campgrounds. Impervious surfaces are incapable of being penetrated by moisture and include building footprints, paved parking areas, roads, and paved pathways. Impervious paving includes asphalt, concrete, and mortared masonry.

Table II-1 (Continued)
Alternatives Comparison Table

Alternative Component	Alternative 1: No Action	Alternative 2 (Preferred)	Alternative 3
Phase 1: Spring 2004 – Summer 2006 (cont.)		■ Conversion of existing Northside Drive to a multi-use paved trail between the roundabout and the Indian Cultural Center ■ End of Phase 1 buildout: 247 lodging units, 356 standard parking spaces, 40 loading/ unloading parking spaces, 15 overnight bus parking spaces, and 30 temporary day-visitor bus parking spaces ■ 150,000 person hours ■ Typical peak workforce of 80 to 90 individuals for one year and 30 to 40 individuals for the remaining period ■ 1,020 truck trips, including 350 concrete and tractor-trailer truck trips providing building materials, 20 tractor-trailer trucks with utility deliveries, 50 logging truck trips to haul logs, and 600 dump truck trips to haul demolition debris and recycled materials ■ Approximately 10 to 16 typical peak truck trips per day. ■ Phase 1 construction and demolition would cost approximately $20.3 million	■ Conversion of existing Northside Drive to a multi-use paved trail between the roundabout and the Indian Cultural Center ■ End of Phase 1 buildout: 249 lodging units, 359 standard parking spaces, 40 loading/unloading parking spaces, 15 overnight bus parking spaces, and 30 temporary day-visitor bus parking spaces ■ 133,000 person hours ■ Typical peak workforce of 85 to 95 individuals for one year and 35 to 45 individuals for the remaining period ■ 1,070 truck trips, including 320 concrete and tractor-trailer truck trips providing building materials, 20 tractor-trailer trucks with utility deliveries, 50 logging truck trips to haul logs, and 680 dump truck trips to haul demolition debris and recycled materials ■ Approximately 10 to 16 typical peak truck trips per day. ■ Phase 1 construction and demolition would cost approximately $22.0 million
Phase 2: Fall 2006 – Fall 2016	■ Not applicable	■ Demolish Juniper, Laurel, the electrical substation, and the search and rescue tent cabins ■ Construct 11 new cabins, the new registration building, the new amphitheater, expanded Camp 4 campsites and facilities, the Indian Cultural Center, and miscellaneous roads and parking lots ■ Renovate the existing registration building and other Lodge facilities consistent with the park's architectural guidelines, and renovate existing Camp 4	■ Demolish Juniper, Laurel, the electrical substation, and the search and rescue tent cabins ■ Construct one new cottage, six new cabins, the new registration building, expanded Camp 4 campsites and facilities, the Indian Cultural Center, and miscellaneous roads and parking lots ■ Renovate the existing registration building and other Lodge facilities consistent with the park's architectural guidelines, and renovate existing Camp 4

Table II-1 (Continued)
Alternatives Comparison Table

Alternative Component	Alternative 1: No Action	Alternative 2 (Preferred)	Alternative 3
Phase 2: Fall 2006 – Fall 2016 (cont.)		■ End of Phase 2 buildout: 251 lodging units, 361 standard parking spaces, 40 loading/ unloading parking spaces, and 15 overnight bus parking spaces. Camp 4 would have 65 campsites and 195 parking spaces. The Indian Cultural Center would be built. ■ 55,000 person-hours ■ Typical peak workforce of 65 to 75 individuals for one year and 25 to 35 individuals for the remaining period ■ 276 truck trips, including 180 concrete and tractor-trailer truck trips providing building materials, 6 tractor-trailer trucks with utility deliveries, and 90 dump truck trips to haul demolition debris and recycled materials ■ Approximately 10 to 16 typical peak truck trips per day. ■ Phase 2 construction and demolition would cost approximately $27.4 million	■ End of Phase 2 buildout: 251 lodging units, 361 standard parking spaces, 40 loading/unloading parking spaces, and 15 overnight bus parking spaces. Camp 4 would have 65 campsites and 195 parking spaces. The Indian Cultural Center would be built. ■ 72,500 person-hours ■ Typical peak workforce of 75 to 85 individuals for one year and 30 to 40 individuals for the remaining period ■ 265 truck trips, including 210 concrete and tractor-trailer truck trips providing building materials, 5 tractor-trailer trucks with utility deliveries, and 50 dump truck trips to haul demolition debris and recycled materials ■ Approximately 10 to 16 typical peak truck trips per day. ■ Phase 2 construction and demolition would cost approximately $26.4 million
Phase 3: Fall 2008 – Fall 2010	■ Not applicable	■ Implement restoration (including removal of a diversion dam and revetments along Yosemite Creek) and revegetation improvements ■ Typical peak workforce of approximately 30 individuals working seasonally during a three-year period ■ 20 flatbed trailer and dump truck trips ■ Phase 3 restoration and revegetation would cost approximately $4.1 million	■ Same as Alternative 2

Table II-1 (Continued)
Alternatives Comparison Table

Alternative Component	Alternative 1: No Action	Alternative 2 (Preferred)	Alternative 3
INDIAN CULTURAL CENTER			
	■ The Indian Cultural Center site would continue to be a vacant site. Former building foundations and other features occupying the site would not be removed.	■ Includes a traditional village and a modern community building ■ Traditional village facilities would include a partly subterranean ceremonial roundhouse, a smaller sweatlodge, and 15 cedar-bark umachas ■ Provide a community building, including a common meeting room, kitchen, public restrooms, dressing room with showers for use by traditional dancers, and a storage area ■ Construct demonstration areas and shade structures for exterior functions ■ Relocate the last extant structure from the original village (the former Westley and Alice Wilson home) from its current nonhistoric location to the Indian Cultural Center and adaptively reuse ■ Reintroduce native plants	■ Same as Alternative 2
Vehicle Access/Parking	■ Not applicable	■ Provide emergency access drive and up to five limited-access and disabled-access parking spaces	■ Same as Alternative 2
FULFILLMENT OF PURPOSE OF AND NEED FOR THE PROJECT			
Restore, protect, and enhance the resources of Yosemite Valley	■ Does not fulfill purpose statement ■ Does not improve connections between Yosemite Lodge and the natural resources of Yosemite Valley ■ Does not site lodging and camping facilities outside of the 100-year floodplain and rockfall zone ■ Does not design Camp 4 campsites to fit within the natural landscape ■ Does not provide a place for American Indian people to continue their culture in Yosemite Valley ■ Does not restore areas of the project site	■ Fulfills purpose statement ■ Improves connections between Yosemite Lodge and the natural resources of Yosemite Valley, including enhancing connections between interior spaces and the outdoors ■ Sites lodging and camping facilities outside of the 100-year floodplain, River Protection Overlay, and rockfall zone ■ Designs Camp 4 campsites to fit within the natural landscape ■ Providing a traditional tribal presence for the American Indian Council of Mariposa County (aka Southern Sierra Miwuk	■ Same as Alternative 2, except this alternative restores approximately 37.31 acres of the project site

Table II-1 (Continued)
Alternatives Comparison Table

Alternative Component	Alternative 1: No Action	Alternative 2 (Preferred)	Alternative 3
		Nation) to continue their cultural traditions in Yosemite Valley and to enhance the meaning and sacred nature of Yosemite ■ Restores approximately 37.89 acres of the project site	
Provide opportunities for high-quality, resource-based visitor experiences	■ Does not fulfill purpose statement ■ Does not change the character of Yosemite Lodge from a motel-type experience to one more connected to a national park lodge experience and Yosemite Valley ■ Does not provide more economy lodging and campsites in Yosemite Valley ■ Does not expand camping opportunities in Yosemite Valley ■ Does not improve wayfinding on the project site, including to the Yosemite Falls trailhead	■ Fulfills purpose statement ■ Changes the character of Yosemite Lodge from a motel-type experience to one more connected to a national park lodge experience and Yosemite Valley ■ Provides more economy lodging and campsites in Yosemite Valley ■ Expands camping opportunities in Yosemite Valley ■ Improves wayfinding on the project site, including to the Yosemite Falls trailhead	■ Same as Alternative 2
Reduce traffic congestion	■ Does not fulfill purpose statement ■ Does not improve the vehicle and pedestrian interface between Yosemite Lodge and Yosemite Falls ■ Does not reduce vehicle and pedestrian traffic hazards on Northside Drive between Yosemite Lodge and Yosemite Falls	■ Fulfills purpose statement ■ Improves the vehicle and pedestrian interface between Yosemite Lodge and Yosemite Falls	■ Same as Alternative 2
Provide effective park operations to meet the mission of the National Park Service	■ Does not fulfill purpose statement ■ Does not improve existing maintenance and common facilities and utilities at Yosemite Lodge and Camp 4	■ Fulfills purpose statement ■ Improves existing maintenance and common facilities and utilities at Yosemite Lodge and Camp 4 ■ Provides adequate parking for Yosemite Lodge and Camp 4 guests consistent with the *Yosemite Valley Plan*	■ Same as Alternative 2

Table II-1 (Continued)
Alternatives Comparison Table

Alternative Component	Alternative 1: No Action	Alternative 2 (Preferred)	Alternative 3
Provide improved facilities and services for people who visit Yosemite Valley	■ Does not fulfill need statement ■ Does not replace and redesign guest accommodations at Yosemite Lodge that were damaged or destroyed by the 1997 flood consistent with the *Yosemite Valley Plan* ■ Does not modify the character of Yosemite Lodge from a motel-type experience to one more connected to a national park lodge experience and Yosemite Valley ■ Does not replace some campsites that were inundated during the 1997 flood ■ Does not reduce traffic congestion on Northside Drive in the vicinity of Yosemite Lodge and Lower Yosemite Fall area ■ Does not restore a traditional tribal presence in Yosemite Valley	■ Fulfills need statement ■ Replaces and redesigns guest accommodations at Yosemite Lodge that were damaged or destroyed by the 1997 flood consistent with the *Yosemite Valley Plan*, and removes lodging units from the 100-year floodplain ■ Modifies the character of Yosemite Lodge from a motel-type experience to one more connected to a national park lodge experience and Yosemite Valley ■ Replaces some campsites that were inundated during the 1997 flood; campsite replacement would avoid, to the greatest extent possible, placing campsites in highly valued natural resource areas, the Merced River floodplain, and rockfall zones, and to allow for the removal of campsites from the River Protection Overlay ■ Reduces traffic congestion on Northside Drive in the vicinity of Yosemite Lodge and Lower Yosemite Fall area ■ Reduces vehicle and pedestrian traffic hazards on Northside Drive between Yosemite Lodge and Lower Yosemite Fall area ■ Restores a traditional tribal presence in Yosemite Valley	■ Same as Alternative 2

Table II-2
Summary of Environmental Consequences

Alternative 1 No Action	**Alternative 2** Preferred	**Alternative 3**
NATURAL RESOURCES GEOLOGY, GEOLOGIC HAZARDS, AND SOILS		
Alternative 1 would have a local, long-term, minor to moderate, adverse impact on geologic resources and soils associated with hazards from unavoidable seismic ground shaking, the potential for infrequent but damaging rockfalls due to the proximity of facilities to the sheer granite cliffs, and continued soil compaction, surface runoff, and soil erosion.	Soil degradation associated with construction activities under Alternative 2 would occur through each project phase and would result in a local, short-term, moderate, adverse impact. As identified in Appendix C, Mitigation Measures Common to All Action Alternatives, standard mitigation including erosion controls and native foliage protection would reduce the construction-related impacts to a negligible to minor intensity. Overall, Alternative 2 would have a local, long-term, negligible, beneficial impact. The beneficial impacts of Alternative 2 associated with restoration and revegetation activities, improved seismic safety associated with new building construction, and relocation of essential facilities outside the base of talus zone would offset the adverse effects associated with construction impacts, hazards from unavoidable seismic ground shaking, and continued placement of facilities within the base of talus and shadow line zones.	As under Alternative 2, soil degradation associated with construction activities under Alternative 3 would occur through each project phase and would result in a local, short-term, moderate, adverse impact. As identified in Appendix C, Mitigation Measures Common to All Action Alternatives, standard mitigation including erosion controls and native foliage protection would reduce the construction-related impacts to a negligible to minor intensity. Overall, Alternative 3 would have a local, long-term, negligible, beneficial impact. The beneficial impacts of Alternative 3 associated with restoration and revegetation activities, improved seismic safety associated with new building construction, and relocation of essential facilities outside the base of talus zone would offset adverse effects associated with construction impacts, hazards from unavoidable seismic ground shaking, and continued placement of facilities within the base of talus and shadow line zones.
Alternative 1 and the cumulative projects would result in a regional, long-term, minor, beneficial impact with respect to the overall seismic safety and reduction of rockfall hazards. Although the earthquake and rockfall hazard would remain unchanged at the project site under Alternative 1, other projects within the Valley would comply with the Geologic Hazard Guidelines and would reduce the overall risk of geologic hazards. The regional, long-term, moderate, beneficial impact to soil resources under the cumulative projects would offset the potential soil degradation under Alternative 1 at the project site.	Alternative 2 and the cumulative projects would result in a regional, long-term, moderate, beneficial impact with respect to overall seismic safety and the reduction of rockfall hazards; although the earthquake and rockfall hazards remain largely unchanged at the Yosemite Lodge Area Redevelopment site under Alternative 2, other projects within the Valley and implementation of the Geologic Hazard Guidelines would reduce the overall risk of geologic hazards. The regional, long-term, moderate, beneficial impact to soil resources under the cumulative projects would add to the soil restoration proposed under Alternative 2, resulting in a net regional, long-term, moderate, beneficial impact to soil resources.	Alternative 3 and the cumulative projects would result in a regional, long-term, moderate, beneficial impact with respect to overall seismic safety and the reduction of rockfall hazards; although the earthquake and rockfall hazards remain largely unchanged at the Yosemite Lodge Area Redevelopment site under Alternative 3, other projects within the Valley and implementation of the Geologic Hazard Guidelines would reduce the overall risk of geologic hazards. The regional, long-term, moderate, beneficial impact to soil resources under the cumulative projects would add to the soil restoration proposed under Alternative 3, resulting in a net regional, long-term, moderate, beneficial impact to soil resources.

Table II-2 (Continued)
Summary of Environmental Consequences

Alternative 1 No Action	**Alternative 2** Preferred	**Alternative 3**
FLOODPLAINS AND W ATER RESOURCES		
Alternative 1 would have a local, long-term, minor to moderate, adverse effect on floodplains and water resources. The buildings that are currently in the floodplain could divert, focus, or otherwise alter flood flow during another major flood in Yosemite Valley, resulting in injury to visitors and damage to buildings. The diversion dam and revetments would remain in place, adversely affecting the Merced River floodplain and Yosemite Creek flow. Impervious surface conditions at the site would continue to contribute to adverse effects on drainage system capacity, and the facilities and uses in and immediately adjacent to the Merced River would continue to adversely affect water quality. The beneficial impacts on water quality associated with remediation of leaking underground storage tank sites would somewhat offset these adverse effects.	Stormwater runoff from construction sites would result in a moderate adverse impact to surface water quality. Implementation of mitigation measures, including development of a comprehensive stormwater pollution prevention plan (see Appendix C, Mitigation Measures Common to All Action Alternatives), would reduce the intensity of the construction-related impacts to negligible. Overall, Alternative 2 would have a local, long-term, minor, beneficial impact on floodplains and water resources. The beneficial impacts associated with removal of major flow impediments from the 100-year floodplain; removal of the diversion dam and revetments from the banks of Yosemite Creek to return the 100-year floodplain to near-natural, free-flow conditions; and improvements to the drainage system would largely offset the adverse effects associated with construction-related stormwater runoff and increased impervious surface area at the project site.	As with Alternative 2, stormwater runoff from construction sites would result in a moderate adverse impact to surface water quality. Implementation of mitigation measures, including development of a comprehensive stormwater pollution prevention plan (see Appendix C, Mitigation Measures Common to All Action Alternatives), would reduce the intensity of the construction-related impacts to negligible. Overall, Alternative 3 would have a local, long-term, minor, beneficial impact on floodplains and water resources. The beneficial impacts associated with removal of major flow impediments from the 100-year floodplain; removal of the diversion dam and revetments from the banks of Yosemite Creek to return the 100-year floodplain to near-natural, free-flow conditions; and improvements to the drainage system would largely offset the adverse effects associated with construction-related stormwater runoff and increased impervious surface area at the project site.
The past, present, and future projects considered cumulatively with Alternative 1 would have a regional, long-term, moderate, beneficial effect on hydrologic processes and water quality, because the long-term beneficial effects associated with the overall effort to improve water resources in Yosemite Valley and return natural flow to river and tributary systems overshadow the minor to moderate adverse impacts that would result from Alternative 1.	The past, present, and future projects considered cumulatively with the Alternative 2 would have a regional, long-term, moderate, beneficial effect on hydrologic processes and water quality, because the removal of flow impediments and improvements to the drainage system under Alternative 2 would contribute to the long-term beneficial effects associated with the overall effort to improve water resources in Yosemite Valley and return natural flow to river and tributary systems. The beneficial impacts would offset the adverse construction- and development-related impacts associated with Alternative 2 and the cumulative projects.	The past, present, and future projects considered cumulatively with the Alternative 3 would have a regional, long-term, moderate, beneficial effect on hydrologic processes and water quality, because the removal of flow impediments and improvements to the drainage system under Alternative 3 would contribute to the long-term beneficial effects associated with the overall effort to improve water resources in Yosemite Valley and return natural flow to river and tributary systems. The beneficial impacts would offset the adverse construction- and development-related impacts associated with Alternative 3 and the cumulative projects.

Table II-2 (Continued)
Summary of Environmental Consequences

Alternative 1 No Action	**Alternative 2** Preferred	**Alternative 3**
WETLANDS		
Alternative 1 would continue to have a local, long-term, moderate, adverse effect on wetlands in the project area by diminishing the size, integrity, and connectivity of jurisdictional wetlands and Cowardin wetlands (palustrine forest, palustrine scrub shrub, palustrine emergent, and riverine). Such impacts include habitat conversion due to conifer and non-native species invasion, degradation of wetlands due to development within the floodplain and heavy recreation-related foot traffic, and fragmentation due to the lack of hydrologic connectivity between wetlands.	Construction activities associated with Alternative 2, including installation and removal of utilities and development of project facilities, would have a moderate adverse impact due to disturbance of 0.43 acres of wetlands (specifically, riverine intermittent drainages). With implementation of mitigation measures (including wetland replacement, erosion control measures, spill prevention and pollution control measures, and wetland protection and compensation measures, such as installing protective fencing material to protect wetlands from construction activities, using silt fencing to reduce erosion, etc.), as described in Appendix C, Mitigation Measures Common to All Action Alternatives, construction impacts to wetlands would be lessened to a minor adverse effect. Overall, Alternative 2 would have a local, long-term, negligible to minor, beneficial impact on wetlands. The beneficial effects associated with restoration and revegetation under this alternative would offset the adverse construction-related impacts.	Construction activities associated with Alternative 3, including installation and removal of utilities and development of project facilities, would have a moderate adverse impact due to disturbance of 0.41 acres of wetlands (specifically, riverine intermittent drainages). With implementation of mitigation measures (including wetland replacement, spill prevention and pollution control measures, and wetland protection and compensation measures, such as installing protective fencing material to protect wetlands from construction activities, using silt fencing to reduce erosion, etc.), as described in Appendix C, Mitigation Measures Common to All Action Alternatives, construction impacts to wetlands would be lessened to a minor adverse effect. Overall, Alternative 3 would have a local, long-term, negligible to minor, beneficial impact on wetlands. The beneficial effects associated with restoration and revegetation under this alternative would offset the adverse construction-related impacts.
These cumulative projects and Alternative 1 would have an overall regional, long-term, moderate, beneficial impact on wetlands in the area. The beneficial impacts of wetland restoration efforts in Yosemite Valley would offset the project-related adverse effects associated with diminishment of the size, integrity, and connectivity of wetlands in the project area.	Alternative 2 and the cumulative projects would result in a local, long-term, major, beneficial impact with respect to wetlands. The beneficial impacts associated with the restoration and revegetation efforts under Alternative 2 would positively contribute to the Valleywide restoration efforts.	Alternative 3 and the cumulative projects would result in a local, long-term, major, beneficial impact with respect to wetlands. The beneficial impacts associated with the restoration and revegetation efforts under Alternative 3 would positively contribute to the Valleywide restoration efforts.

Table II-2 (Continued)
Summary of Environmental Consequences

Alternative 1 No Action	**Alternative 2** Preferred	**Alternative 3**
VEGETATION		
Alternative 1 would not provide a comprehensive approach to improvements, restoration, or management of natural and developed plant communities, resulting in continued and localized, long-term degradation. The size, continuity, and integrity of vegetation would continue to diminish due to conifer invasion in upland, meadow, and riparian communities; lack of fire; spread of fungus root rot (annosus and armillaria); human-related disturbances (including trampling); and spread of non-native species. The continued management of vegetation at the Yosemite Lodge Area Redevelopment site would result in a local, long-term, moderate, adverse impact.	Compared to Alternative 1, Alternative 2 would alter the size, integrity, and continuity of vegetation due to the removal of 1,059 trees and potential construction-related vegetation trampling effects, resulting in a local, long-term, minor, adverse impact. Implementation of biological resource protection measures (such as installing temporary fencing, controlling and minimizing invasive non-native species, and implementing revegetation measures to restore disturbed areas), as described in Appendix C, Mitigation Measures Common to All Action Alternatives, would somewhat offset this adverse effect although the impact would remain minor. Overall, Alternative 2 would have a local, long-term, negligible to minor, beneficial impact because the restoration and revegetation efforts would offset the adverse construction-related effect associated with tree removal.	Compared to Alternative 1, Alternative 3 would alter the size, integrity, and continuity of vegetation due to the removal of 1,036 trees and potential construction-related vegetation trampling effects, resulting in a local, long-term, minor, adverse impact. Implementation of biological resource protection measures (such as e.g., installing temporary fencing to protect remaining trees and highly sensitive biological resources, controlling and minimizing invasive non-native species, and implementing revegetation measures to restore disturbed areas) as described in Appendix C, Mitigation Measures Common to All Action Alternatives, would somewhat offset this adverse effect although the impact would remain minor. Overall, Alternative 2 would have a local, long-term, negligible to minor, beneficial impact because the restoration and revegetation efforts would offset the adverse construction-related effect associated with tree removal.
Alternative 1 and the cumulative projects in Yosemite Valley would result in a local, long-term, moderate, beneficial impact on vegetation, due to the overall emphasis on restoring disturbed or developed land to natural conditions and improving the size, continuity, and integrity of vegetation. These beneficial effects would outweigh the moderate adverse effect associated with Alternative 1 and the adverse effects of cumulative development projects and construction activities.	Alternative 2 and the cumulative projects would result in a regional, long-term, moderate, beneficial impact with respect to vegetation, because efforts to restore and revegetate developed and/or disturbed areas within the Valley and the project site would offset adverse impacts related to construction and increased development.	Alternative 3 and the cumulative projects would result in a regional, long-term, moderate, beneficial impact with respect to vegetation, because efforts to restore and revegetate developed and/or disturbed areas within the Valley and the project site would offset adverse impacts related to construction and increased development.

Table II-2 (Continued)
Summary of Environmental Consequences

Alternative 1 No Action	**Alternative 2** Preferred	**Alternative 3**
WILDLIFE		
Continued use of the project area would result in a local, long-term, moderate, adverse impact on wildlife due to habitat fragmentation as a result of buildings, roads, parking lots, and other development; vehicle and pedestrian noise; human presence; and other use-associated effects.	Construction-related activities would have a minor to moderate adverse effect on wildlife through habitat disturbance (including tree removal), noise, human presence, and operation of heavy equipment. Implementation of mitigation measures, such as preconstruction wildlife surveys and erosion and sedimentation control measures (see Appendix C, Mitigation Measures Common to All Action Alternatives), would reduce the magnitude of construction-related adverse effects on wildlife to minor. Moderate, adverse, operation-related effects on wildlife would occur through habitat fragmentation, increased human presence, expansion of development into undeveloped areas, and creation of facilities that could attract black bears to the project site. Food waste control and other measures developed in coordination with the Bear Management Council would reduce the severity of this adverse effect. The beneficial effects on wildlife and highly valued resources due to riparian and meadow habitat restoration activities, modification of Northside Drive into a multi-use paved trail, and restoration of the natural hydrology of Yosemite Creek would somewhat offset but not reduce the intensity of the adverse construction- and operation-related impacts associated with Alternative 2. Overall, Alternative 2 would have a local, long-term, moderate, adverse effect on wildlife.	Similar to Alternative 2, construction-related activities under Alternative 3 would have a minor to moderate adverse effect on wildlife through habitat disturbance (including tree removal), noise, human presence, and operation of heavy equipment. Implementation of mitigation measures, such as preconstruction wildlife surveys and erosion and sedimentation control measures (see Appendix C, Mitigation Measures Common to All Action Alternatives), would reduce the magnitude of the construction-related adverse effects on wildlife to minor. Minor, adverse, operation-related effects on wildlife would occur through habitat fragmentation, increased human presence, and expansion of development into undeveloped areas. The beneficial effects on wildlife and highly valued resources due to riparian and meadow habitat restoration activities, modification of Northside Drive into a multi-use paved trail, and restoration of the natural hydrology of Yosemite Creek would offset the adverse construction- and operation-related impacts associated with Alternative 3. Overall, Alternative 3 would have a local, long-term, minor, adverse effect on wildlife.
Alternative 1 and the cumulative projects in Yosemite Valley would result in a regional, long-term, moderate, beneficial impact on wildlife, due to the overall emphasis on restoring disturbed or developed land to natural conditions and improving the health of ecosystems. These beneficial effects would outweigh the moderate adverse effect associated with Alternative 1 and the adverse effects of cumulative development projects and construction activities.	Alternative 2 and the cumulative projects would result in a local, long-term, moderate, beneficial impact on wildlife because of the overall emphasis on restoring disturbed or developed land to natural conditions and improving the health of ecosystems. These beneficial effects would outweigh the adverse effects associated construction-related activities and new development under Alternative 2 and the cumulative development projects.	Alternative 3 and the cumulative projects would result in a local, long-term, moderate, beneficial impact on wildlife because of the overall emphasis on restoring disturbed or developed land to natural conditions and improving the health of ecosystems. These beneficial effects would outweigh the adverse effects associated construction-related activities and new development under Alternative 3 and the cumulative development projects.

Table II-2 (Continued)
Summary of Environmental Consequences

Alternative 1 No Action	**Alternative 2** Preferred	**Alternative 3**
SPECIAL-STATUS SPECIES		
Continued use of the Yosemite Lodge area, Camp 4, Northside Drive, Yosemite Creek Bridge, Indian Cultural Center site, Yosemite Creek Pedestrian/ Bicycle Bridge, and the Yosemite Creek diversion dam would result in a local, long-term, moderate, adverse impact on special-status species. Though unused developed areas within the Yosemite Lodge area would provide somewhat undisturbed habitat for special-status species, overall human use of the Yosemite Lodge area is very high. Continued use of the Yosemite Lodge Area Redevelopment site and associated habitat fragmentation would have a local, long-term, moderate, adverse impact on special-status species.	Construction-related activities would have a minor to moderate adverse effect on special-status species through habitat disturbance (including tree removal), noise, human presence, and operation of heavy equipment. Implementation of mitigation measures, such as preconstruction surveys, nest monitoring, and avoidance of special-status species and occupied habitat wherever feasible (see Appendix C, Mitigation Measures Common to All Action Alternatives), would reduce the magnitude of the adverse construction-related effects on special-status species. The beneficial effects to special-status species and highly valued resources due to riparian and meadow habitat restoration activities, modification of Northside Drive into a multi-use paved trail, and restoration of the natural hydrology of Yosemite Creek would offset the adverse construction- and development-related effects associated with Alternative 2. Overall, Alternative 2 would have a local, long-term, negligible, beneficial effect on special-status species.	Like Alternative 2, Alternative 3 construction-related activities would have a minor to moderate adverse effect on special-status species through habitat disturbance (including tree removal), noise, and operation of heavy equipment. Implementation of mitigation measures, such as preconstruction surveys, nest monitoring, and avoidance of special-status species and occupied habitat wherever feasible (see Appendix C, Mitigation Measures Common to All Action Alternatives), would reduce the magnitude of the construction-related adverse effects on special-status species. The beneficial effects on special-status species and highly valued resources due to riparian and meadow habitat restoration activities, modification of Northside Drive into a multi-use paved trail, and restoration of the natural hydrology of Yosemite Creek would offset the adverse construction- and development-related effects associated with Alternative 3. Restoration and revegetation activities would have beneficial impacts on habitat for special-status species. Overall, Alternative 3 would have a local, long-term, negligible, beneficial effect on special-status species.
Alternative 1 and the cumulative projects in Yosemite Valley would result in a regional, long-term, minor to moderate, beneficial impact on special-status species through re-establishment of the natural hydrology and fire regime of the Valley and restoration of disturbed and developed land to natural conditions. These beneficial effects would outweigh the moderate adverse effect associated with Alternative 1 and the adverse effects of cumulative development projects and construction activities.	Overall, past, present, and reasonably foreseeable future projects considered in conjunction with Alternative 2 would have a regional, long-term, moderate, beneficial effect on special-status species and their habitats, primarily due to the beneficial effects associated with implementation of large-scale planning efforts that would protect and restore highly valued resource habitats in Yosemite Valley. These restoration efforts would compliment actions under this alternative, which would restore areas of upland, meadow, and riparian habitats that are important to many special-status species.	Overall, current and reasonably foreseeable future projects considered in conjunction with the actions under Alternative 3 would have a regional, long-term, moderate, beneficial effect on special-status species and their habitats. This is primarily due to the beneficial effects associated with implementation large-scale planning efforts that would protect and restore highly valued resource habitats in Yosemite Valley. These restoration efforts would compliment actions under this alternative, which would restore areas of upland, meadow, and riparian habitats that are important to many special-status species.

Table II-2 (Continued)
Summary of Environmental Consequences

Alternative 1 No Action	**Alternative 2** Preferred	**Alternative 3**
AIR QUALITY		
Continued wood burning and traffic congestion along Northside Drive and in the local circulation system under Alternative 1 would result in a local, long-term, negligible, adverse impact to air quality in the vicinity of the Yosemite Lodge Area Redevelopment site.	Construction activities associated with Alternative 2 would have a minor to moderate, adverse effect on air quality. As described in Appendix C, Mitigation Measures Common to All Action Alternatives, implementation of practices such as watering, covering stockpiles, and covering haul trucks would reduce the intensity of the adverse construction-related emissions to negligible to minor. Overall, Alternative 2 would have a local, long-term, negligible, beneficial effect on air quality associated with the substantial decrease in the amount of vehicle emissions on busy days. The beneficial operational effects would offset the long-term but temporary adverse effects to air quality associated with demolition and construction activities and increased nonvehicle operational emissions.	Like Alternative 2, the construction activities associated with Alternative 3 would have a minor to moderate, adverse effect on air quality. As described in Appendix C, Mitigation Measures Common to All Action Alternatives, implementation of practices such as watering, covering stockpiles, and covering haul trucks would reduce the intensity of the adverse construction-related emissions to negligible to minor. Overall, Alternative 3 would have a local, long-term, negligible, beneficial effect on air quality associated with the reduction of vehicle emissions. The beneficial operational effects would offset the adverse effects to air quality associated with demolition and construction activities and increased nonvehicle operational emissions.
With regard to air quality in the vicinity of the Yosemite Lodge Area Redevelopment site, nonvehicle and vehicle emissions associated with the operation of Camp 4 and Yosemite Lodge under Alternative 1 would not substantially alter the intensity of this minor beneficial impact at the regional and local level.	Alternative 2 and the cumulative projects would result in a regional, long-term, minor, beneficial effect on air quality. The minor beneficial effects of Alternative 2 associated with reduced nonvehicle operational emissions and vehicle emissions would contribute to the overall beneficial effects of the cumulative projects.	Alternative 3 and the cumulative projects would result in a regional, long-term, minor, beneficial effect on air quality. The beneficial effects of Alternative 3 associated with reduced vehicle emissions would contribute to the overall beneficial effects of the cumulative projects.

Table II-2 (Continued)
Summary of Environmental Consequences

Alternative 1 No Action	**Alternative 2** Preferred	**Alternative 3**
NOISE		
Alternative 1 would result in a local, long-term, negligible, adverse impact to the noise environment at Camp 4, due to noise generated by traffic on Northside Drive.	Noise generated by demolition and construction activities under Alternative 2 would have a local, long-term but temporary, major, adverse effect on the ambient noise environment during the 13-year construction period. As described in Appendix C, Mitigation Measures Common to All Action Alternatives, measures would be employed to mitigate adverse noise impacts, including implementation of standard noise abatement measures during construction (such as schedules that minimize impacts to adjacent noise-sensitive uses), use of best-available noise control techniques where feasible, use of hydraulically or electrically powered impact tools when feasible, and siting of stationary noise sources as far from noise-sensitive uses as possible. Although the mitigation measures would somewhat reduce construction noise levels, during intense periods of construction the noise levels would continue to be substantial and highly noticeable. Overall, Alternative 2 would have a local, long-term, moderate, adverse effect on the noise environment. The adverse effects associated with construction noise and increases in nonvehicle operational noise would be somewhat offset by the beneficial effects associated with reduced vehicle noise.	As with Alternative 2, noise generated by demolition and construction activities under Alternative 3 would have a local, long-term but temporary, major, adverse effect on the ambient noise environment during the 13-year construction period. As described in Appendix C, Mitigation Measures Common to All Action Alternatives, measures would be employed to mitigate adverse noise impacts, including implementation of standard noise abatement measures during construction (such as schedules that minimize impacts to adjacent noise-sensitive uses), use of best-available noise control techniques where feasible, use of hydraulically or electrically powered impact tools when feasible, and siting of stationary noise sources as far from noise-sensitive uses as possible. Although the mitigation measures would somewhat reduce construction noise levels, during intense periods of construction the noise levels would continue to be substantial and highly noticeable. Overall, Alternative 3 would have a local, long-term, moderate, adverse effect on the noise environment. The adverse effects associated with construction noise and increases in nonvehicle operational noise would be somewhat offset by the beneficial effects associated with reduced vehicle noise.
The cumulative project construction activity would have a long-term but temporary, substantial adverse effect on the noise environment of Yosemite Valley. Overall, however, the permanent beneficial effects of the cumulative projects associated with reduced regional vehicle trips and related vehicle noise would result in a regional, long-term, minor, beneficial effect on the noise environment. Implementation of Alternative 1 would not increase or reduce noise levels or generate any new sources of noise and therefore would not contribute to this cumulative impact.	Alternative 2 construction-related noise at the project site would contribute to the adverse construction-related noise impacts of the cumulative projects. Overall, however, Alternative 2 and the cumulative projects would have a regional, long-term, minor, beneficial impact. The permanent beneficial effect of the reduction in regional vehicle noise would offset the temporary construction-related noise impacts and the small increase in nonvehicle noise associated with Alternative 2.	Alternative 3 construction-related noise at the project site would contribute to the adverse construction-related noise impacts of the cumulative projects. Overall, however, Alternative 3 and the cumulative projects would have a regional, long-term, minor, beneficial impact. The permanent beneficial effect of the reduction in regional vehicle noise would offset the temporary construction-related noise impacts and the small increase in nonvehicle noise associated with Alternative 3.

Table II-2 (Continued)
Summary of Environmental Consequences

Alternative 1 No Action	**Alternative 2** Preferred	**Alternative 3**
	CULTURAL RESOURCES	
	ARCHEOLOGICAL RESOURCES	
Alternative 1 would not alter the treatment of archeological resources from their present condition. Potential alteration of an archeological resource would result in a local, long-term, negligible, adverse impact associated with potential damage due to ongoing maintenance, grading and removal of archeological deposits, vandalism, visitor access, and natural processes. Any site-specific planning would be performed in accordance with stipulations in the park's 1999 Programmatic Agreement.	Construction-related activities under Alternative 2 would have a minor to moderate adverse effect on five archeological resources within the construction and demolition footprint. As identified in Appendix C, Mitigation Measures Common to All Action Alternatives, mitigation measures would be implemented, including avoidance, construction monitoring, documentation, interpretation, materials salvage, data recovery, and National Register re-evaluation. With mitigation, Alternative 2 would have a local, permanent, minor, adverse effect on archeological resources associated with construction-related activity and operational disturbances. Any site-specific planning would be performed in accordance with stipulations in the park's 1999 Programmatic Agreement.	Construction-related activities under Alternative 3 would have a minor adverse effect on five archeological resources within the construction and demolition footprint. As identified in Appendix C, Mitigation Measures Common to All Action Alternatives, mitigation measures would be implemented, including avoidance, construction monitoring, documentation, interpretation, data recovery, and National Register re-evaluation. With mitigation, Alternative 3 would have a local, permanent, minor, adverse effect on archeological resources associated with construction-related activity and operational disturbances. Any site-specific planning would be performed in accordance with stipulations in the park's 1999 Programmatic Agreement.
The cumulative projects would have a regional, permanent, minor, adverse impact associated with potential disturbance of individual archeological resources. Alternative 1 would contribute to this effect on a local level due to potential alteration of an archeological resource associated with ongoing maintenance, grading and removal of archeological deposits, vandalism, visitor access, and natural processes.	Alternative 2 and the cumulative projects in Yosemite Valley would result in a regional, permanent, minor, adverse impact on archeological resources. Alternative 2 would contribute to the loss of regional archeological resources as a consequence of the disturbance or degradation of five archeological sites. To mitigate adverse impacts, important information contained in these sites would be recovered according to stipulations of the Programmatic Agreement.	Alternative 3 and the cumulative projects in Yosemite Valley would result in a regional, permanent, minor, adverse impact on archeological resources. Alternative 3 would contribute to the loss of regional archeological resources as a consequence of the disturbance or degradation of five archeological sites. To mitigate adverse impacts, important information contained in these sites would be recovered according to stipulations of the Programmatic Agreement.
	AMERICAN INDIAN TRADITIONAL RESOURCES	
Alternative 1 would not alter the management or treatment of American Indian traditional resources in the project area.	Alternative 2 construction-related activities would have a minor to moderate adverse effect on American Indian traditional resources. As identified in Appendix C, Mitigation Measures Common to All Action Alternatives, mitigation measures would include avoidance, construction monitoring, documentation, interpretation, materials salvage, confining construction activities to the development footprint, revegetation with traditionally used plants, monitoring of plant growth, and watering active construction areas to reduce dust. With mitigation to offset adverse construction impacts, Alternative 2 would have an overall local, long-term, minor, beneficial impact on traditional resources due to the development of an Indian Cultural Center. The beneficial impacts	Similar to Alternative 2, Alternative 3 construction-related activities would have a minor to moderate adverse effect on traditional resources. As identified in Appendix C, Mitigation Measures Common to All Action Alternatives, mitigation measures would include avoidance, construction monitoring, documentation, interpretation, materials salvage, confining construction activities to the development footprint, revegetation with traditionally used plants, monitoring of plant growth, and watering active construction areas to reduce dust. With mitigation to offset adverse construction impacts, Alternative 3 would have an overall local, long-term, minor, beneficial impact on traditional resources due to the development of an Indian Cultural Center. The beneficial historic

Table II-2 (Continued)
Summary of Environmental Consequences

Alternative 1 No Action	**Alternative 2** Preferred	**Alternative 3**
	associated with the Indian Cultural Center would largely offset the adverse construction-related impacts of Alternative 2.	impacts associated with the Indian Cultural Center would largely offset the adverse construction-related impacts of Alternative 3.
Disturbance of American Indian traditional resources as a result of the cumulative projects would be considered a regional, long-term, minor, adverse impact associated with potential disturbance of traditional gathering areas or historic village areas. Alternative 1 would not contribute to this effect.	Alternative 2 and the cumulative projects would have a regional, long-term, minor, adverse impact on American Indian traditional resources associated with potential disturbance of traditional gathering areas or historic village areas and adverse construction-related effects on traditional resources. The beneficial effects of developing the Indian Cultural Center would not offset the adverse effects of the cumulative projects.	Alternative 3 and the cumulative projects would have a regional, long-term, minor, adverse impact on American Indian traditional resources associated with potential disturbance of traditional gathering areas or historic village areas and adverse construction-related effects on traditional resources. The beneficial effects of developing the Indian Cultural Center would not offset the adverse effects of the cumulative projects.
CULTURAL LANDSCAPE RESOURCES, INCLUDING HISTORIC SITES AND STRUCTURES		
Alternative 1 would not alter the management or treatment of cultural landscape resources, including the Yosemite Falls Trail, the Valley Loop Trail, and Camp 4 in the project area.	Alternative 2 would alter two trails and Camp 4, which are eligible for listing or listed on the National Register of Historic Places. The trails are contributing elements to the Yosemite Valley Cultural Landscape as circulation systems. These impacts to cultural landscape resources would be minor and adverse. As identified in Appendix C, Mitigation Measures Common to All Action Alternatives, mitigation measures would include documentation. Overall, Alternative 2 would have a local, long-term, minor, adverse impact on cultural landscape resources.	Like Alternative 2, Alternative 3 would alter two trails and Camp 4, resulting in a minor adverse impact on cultural landscape resources. As identified in Appendix C, Mitigation Measures Common to All Action Alternatives, mitigation measures would include data recovery and documentation. Overall, Alternative 3 would have a local, long-term, minor, adverse impact on cultural landscape resources.
As analyzed and disclosed in the Yosemite Valley Plan, disturbance of cultural landscape resources associated with the cumulative projects would be a long-term, minor to major, adverse impact, depending upon the nature, location, and design of the facility to be developed or removed, as well as the quantity and data potential of the individual resources or landscape affected. Alternative 1 would not contribute to this effect.	Alternative 2 and the cumulative projects would have a regional, long-term, minor to major, adverse impact on the cultural landscape. Alterations to the cultural landscape at the Yosemite Lodge Area Redevelopment site would contribute to the adverse effects of the cumulative projects.	Alternative 3 and the cumulative projects would have a regional, long-term, minor to major, adverse impact on the cultural landscape. Alterations to the cultural landscape at the Yosemite Lodge Area Redevelopment site would contribute to the adverse effects of the cumulative projects.

Table II-2 (Continued)
Summary of Environmental Consequences

Alternative 1 No Action	**Alternative 2** Preferred	**Alternative 3**
	SOCIAL RESOURCES	
	SCENIC RESOURCES	
Alternative 1 would continue to have readily apparent adverse impacts on the local scenic resources of the Yosemite Lodge Area Redevelopment site. Yosemite Lodge would be a visual intrusion from two important vantage points in Yosemite Valley; fire suppression activities resulting in dense forest stands would continue to block key views from the project area; and design of Lodge, Northside Drive, and Camp 4 areas would continue to detract from scenic resources and views of scenic resources, resulting an a local, long-term, moderate, adverse impact.	Alternative 2 would have a local, long-term, minor, beneficial impact on scenic resources compared to Alternative 1. The beneficial effects associated with the proposed facility design improvements, pedestrian-focused site layout, revegetation and restoration activities, and viewshed and forest management efforts would outweigh the adverse effects to scenic resources associated with construction activities and increased developed features at the project site.	Alternative 3 would have a local, long-term, minor, beneficial impact on scenic resources compared to Alternative 1. The beneficial effects associated with the proposed facility design improvements, pedestrian-focused site layout, revegetation and restoration activities, and viewshed and forest management efforts would outweigh the adverse effects to scenic resources associated with construction activities and increased developed features at the project site.
The beneficial effects of restoring disturbed or developed land to natural conditions and improving the health of ecosystems would outweigh the local, moderate, adverse effect associated with Alternative 1 and the adverse effects of cumulative development projects and construction activities. Therefore, Alternative 1 and the cumulative projects in Yosemite Valley would result in a regional, long-term, moderate, beneficial impact on scenic resources.	The cumulative projects in Yosemite Valley would result in a regional, long-term, moderate, beneficial impact on scenic resources because of the overall emphasis on restoring disturbed or developed land to natural conditions and improving the health of ecosystems. Alternative 2 would contribute the beneficial effects of the cumulative projects. Alternative 2 and the cumulative projects would result in a regional, long-term, moderate, beneficial impact on scenic resources.	The cumulative projects in Yosemite Valley would result in a regional, long-term, moderate, beneficial impact on scenic resources because of the overall emphasis on restoring disturbed or developed land to natural conditions and improving the health of ecosystems. Alternative 3 would contribute the beneficial effects of the cumulative projects. Alternative 3 and the cumulative projects would result in a regional, long-term, moderate, beneficial impact on scenic resources.
	VISITOR EXPERIENCE	
Over the long term, motel-like lodge structures and facilities would continue to detract from sightseeing opportunities, trails and paths would remain discontinuous with other Valley trails, and the vehicular focus of the area would continue to present a hazard to pedestrians and bicyclists, resulting in a local, long-term, minor, adverse impact on recreation resources in the project area. Signage for trails and multi-use paved trails would continue to be limited, and the connection between the trailhead sign at the Camp 4 parking area and the Valley Loop/Yosemite Falls trail system would remain unclear, resulting in a local, long-term, minor, adverse impact on orientation and interpretation resources. Under Alternative 1, Lodge and Camp 4 facility locations, appearance, number of units, sizing of support facilities, and the level of service experienced by park visitors along Northside Drive would constitute a local, long-term, minor to moderate, adverse impact. Under Alternative 1, continued operation of the Lodge and	Under Alternative 2, construction activities would disrupt use of and access to recreation opportunities in the project area and adjacent areas. Traffic control measures, air quality and noise measures, and implementation of a visitor outreach communication plan, as described in Appendix C, Mitigation Measures Common to All Action Alternatives, would be employed to reduce effects related to recreation access. Construction-phase activities under Alternative 2 would result in a local, long-term but temporary, minor, adverse impact in the project area compared to Alternative 1. Overall, Alternative 2 would result in a local, long-term, minor to moderate, beneficial impact compared to Alternative 1, due to the provision of additional recreation opportunities and improvement of existing recreation opportunities. Construction activities under Alternative 2 would disrupt orientation and interpretation opportunities in the project area. A visitor outreach communication plan and	Under Alternative 3, construction activities would disrupt use of and access to recreation opportunities in the project area and adjacent areas. Traffic control measures, air quality and noise measures, and implementation of a visitor outreach communication plan, as described in Appendix C, Mitigation Measures Common to All Action Alternatives, would be employed to reduce effects related to recreation access. Construction-phase activities under Alternative 3 would result in a local, long-term but temporary, minor, adverse impact in the project area compared to Alternative 1. Overall, Alternative 3 would result in a local, long-term, minor to moderate, beneficial impact compared to Alternative 1, due to the provision of additional recreation opportunities and improvement of existing recreation opportunities. Construction activities under Alternative 3 would disrupt orientation and interpretation opportunities in the project area. A visitor outreach communication plan and

Table II-2 (Continued)
Summary of Environmental Consequences

Alternative 1 No Action	**Alternative 2** Preferred	**Alternative 3**
Camp 4, including nighttime lighting, would result in a local, long-term, negligible, adverse effect on the night sky in the project area.	construction phasing, as described in Chapter II, Alternatives, and Appendix C, Mitigation Measures Common to All Action Alternatives, would be implemented to reduce effects related to disruption of orientation and interpretation opportunities. Facility construction under Alternative 2 would result in a local, long-term but temporary, minor, adverse impact to orientation and interpretation compared to Alternative 1. Overall, Alternative 2 would result in a local and regional, long-term, moderate to major, beneficial impact compared to Alternative 1, due to the increase in orientation and interpretation opportunities, particularly at the Indian Cultural Center. Under Alternative 2, construction activities would disrupt use of existing visitor-service facilities. Traffic control measures, a visitor outreach communication plan, and construction phasing, as described in Appendix C, Mitigation Measures Common to All Action Alternatives, would be implemented to reduce effects related to visitor services. Facility construction under Alternative 2 would result in a local, long-term but temporary, minor to moderate, adverse impact to visitor services compared to Alternative 1. Overall, Alternative 2 would result in a local and regional, long-term, moderate to major, beneficial impact compared to Alternative 1, due to improvements to visitor services in the project area and provision of a new Indian Cultural Center. Construction activities under Alternative 2, with mitigation described in Appendix C, Mitigation Measures Common to All Action Alternatives, would result in a local, long-term but temporary, minor, adverse impact to the night sky associated with nighttime lighting. While operation under Alternative 2 would require increased exterior lighting, the design of such lighting (as described in Chapter II, Alternatives) and the application of mitigation measures (as described in Appendix C, Mitigation Measures Common to All Action Alternatives) would result in a local, long-term, negligible, adverse impact to the night sky compared to Alternative 1.	construction phasing, as described in Chapter II, Alternatives, and Appendix C, Mitigation Measures Common to All Action Alternatives, would be implemented to reduce effects related to disruption of orientation and interpretation opportunities. Facility construction under Alternative 3 would result in a local, long-term but temporary, minor, adverse impact to orientation and interpretation compared to Alternative 1. Overall, Alternative 3 would result in a local and regional, long-term, moderate to major, beneficial impact compared to Alternative 1, due to the increase in orientation and interpretation opportunities, particularly at the Indian Cultural Center. Under Alternative 3, construction activities would disrupt use of existing visitor-service facilities. Traffic control measures, a visitor outreach communication plan, and construction phasing, as described in Appendix C, Mitigation Measures Common to All Action Alternatives, would be implemented to reduce effects related to visitor services. Facility construction under Alternative 3 would result in a local, long-term but temporary, minor to moderate, adverse impact to visitor services compared to Alternative 1. Overall, Alternative 3 would result in a local and regional, long-term, moderate to major, beneficial impact compared to Alternative 1, due to improvements to visitor services in the project area and provision of a new Indian Cultural Center. Construction activities under Alternative 3, with mitigation described in Appendix C, Mitigation Measures Common to All Action Alternatives, would result in a local, long-term but temporary, minor, adverse impact to the night sky associated with nighttime utility work. While operation under Alternative 3 would require increased exterior lighting, the design of such lighting (as described in Chapter II, Alternatives) and the application of mitigation measures (as described in Appendix C, Mitigation Measures Common to All Action Alternatives) would result in a local, long-term, negligible, adverse impact to the night sky compared to Alternative 1.

Table II-2 (Continued)
Summary of Environmental Consequences

Alternative 1 No Action	**Alternative 2** Preferred	**Alternative 3**
The cumulative projects would have a local, long-term, minor, beneficial effect on visitor experience due to expanded opportunities in the park and improved transit service to more park destinations. Alternative 1 and the cumulative projects would result in a local, long-term, minor, beneficial impact on visitor experience due to expanded opportunities in the park and improved transit service to more park destinations. The adverse effects of Alternative 1 on visitor experience at and in the vicinity of the project area, the overall reduction of overnight lodging and camping units under the Yosemite Valley Plan, and the potential increase in nighttime lighting in the Valley associated with new facilities would be offset by the beneficial impacts of the cumulative projects.	The cumulative projects would have a local, long-term, minor, beneficial effect on visitor experience due to expanded opportunities in the park and improved transit service to more park destinations. Alternative 2 and the cumulative projects would result in a local, long-term, minor, beneficial impact on visitor experience due to expanded opportunities in the park and improved transit service to more park destinations. The beneficial effects of Alternative 2 on visitor experience would contribute to the cumulative beneficial effect.	The cumulative projects would have a local, long-term, minor, beneficial effect on visitor experience due to expanded opportunities in the park and improved transit service to more park destinations. Alternative 3 and the cumulative projects would result in a local, long-term, minor, beneficial impact on visitor experience due to expanded opportunities in the park and improved transit service to more park destinations. The beneficial effects of Alternative 3 on visitor experience would contribute to the cumulative beneficial effect.
SOCIOECONOMICS		
Alternative 1 would have a regional, long-term, negligible, beneficial impact on visitor spending and employee housing. The adverse effect associated with substandard employee housing would be offset by the beneficial effect of continued visitor spending associated with project area facilities.	The combined effect of construction spending, visitor spending, and changes in employee housing is expected to result in a long-term, negligible to minor, beneficial impact to the socioeconomic environment. Impacts associated with construction and visitor spending would be beneficial to the regional socioeconomic environment, and impacts associated with employee housing would be beneficial to the local socioeconomic environment.	The combined effect of construction spending, visitor spending, and changes in employee housing is expected to result in a long-term, negligible to minor, beneficial impact to the socioeconomic environment. Impacts associated with construction and visitor spending would be beneficial to the regional socioeconomic environment, and impacts associated with employee housing would be beneficial to the local socioeconomic environment.
Alternative 1 and the cumulative projects would have a regional, long-term, minor to moderate, beneficial impact on the regional economy. The beneficial effects of continued visitor spending associated with project area facilities would contribute to visitor and construction-related spending in the region.	Alternative 2 and the cumulative projects would result in regional, long-term, minor to moderate, beneficial impacts on the socioeconomic environment as a result of the additive effects of expected employment and spending increases associated with Alternative 2.	Alternative 3 and the cumulative projects would result in regional, long-term, minor to moderate, beneficial impacts on the socioeconomic environment as a result of the additive effects of expected employment and spending increases associated with Alternative 3.

Table II-2 (Continued)
Summary of Environmental Consequences

Alternative 1 No Action	**Alternative 2** Preferred	**Alternative 3**
TRANSPORTATION		
Continued operations at Yosemite Lodge and Camp 4 would cause local, long-term, moderate, adverse impacts to traffic flow and traffic safety conditions due to the unchanged alignment of Northside Drive and unchanged circulation patterns.	Alternative 2 would cause local, short-term, minor to moderate, adverse impacts (after mitigation) during site redevelopment; local, long-term, moderate, beneficial impacts to traffic flow conditions; and local, long-term, minor, beneficial effects on traffic safety/conflicts.	Alternative 3 would cause local, short-term, minor to moderate, adverse impacts (after mitigation) during site redevelopment; local, long-term, moderate, beneficial impacts to traffic flow conditions; and local, long-term, minor, beneficial effects on traffic safety/conflicts.
Collectively, the cumulative projects discussed above would have a local, long-term, major, beneficial impact on transportation conditions within the park. Construction activities associated with the development of the cumulative projects, however, would reduce the intensity of this beneficial impact to a minor or moderate level in the short term. Alternative 1 and the cumulative projects would result in a local, long-term, moderate, beneficial impact on transportation conditions within the park.	The cumulative projects in Yosemite Valley would result in a regional, long-term, moderate, beneficial impact on transportation conditions within the park. The local, short-term, minor to moderate, adverse impact on transportation conditions from project construction activities would be offset by the beneficial impacts of the cumulative projects. The local, long-term, minor, beneficial effect on traffic flow and traffic safety would be enhanced by the beneficial impacts of the cumulative projects.	The cumulative projects in Yosemite Valley would result in a regional, long-term, moderate, beneficial impact on transportation conditions within the park. The local, short-term, minor to moderate, adverse impact on transportation conditions from project construction activities would be offset by the beneficial impacts of the cumulative projects. The local, long-term, minor, beneficial effect on traffic flow and traffic safety would be enhanced by the beneficial impacts of the cumulative projects.
PARK OPERATIONS AND FACILITIES		
The aging utility infrastructure at Camp 4 and Yosemite Lodge, especially the sewer system, would continue to place ongoing demands on facilities management staff for repair and maintenance work. The fire protection capacity of the water system would remain uncertain, potentially presenting visitor protection division firefighters with additional challenges under Alternative 1. Together, these conditions would result in a local, long-term, minor, adverse effect on park operations.	Overall, Alternative 2 would have a local, long-term, moderate, adverse impact on park operations and facilities due to additional staff demands associated with the new facilities and improvements (including restoration and revegetation) in the project area and the increase in the number of visitors that would be accommodated by these facilities. The adverse effect on park operations of Alternative 2 would be partially offset by the beneficial impacts associated with improvements to the existing utility system.	Like Alternative 2, Alternative 3 would have a local, long-term, moderate, adverse impact on park operations and facilities due to additional staff demands associated with the new facilities and improvements (including restoration and revegetation) in the project area and the increase in the number of visitors that would be accommodated by these facilities. The adverse effect on park operations of Alternative 3 would be partially offset by the beneficial impact associated with improvements to the existing utility and fire protection system.
Alternative 1 and the cumulative projects would have a regional, long-term, moderate, adverse impact on park operations and facilities. The adverse impact associated with Alternative 1 (including maintenance demands of the sewer system and the water system) would contribute, to a limited extent, to the adverse effect of increased demand for park operations services and facilities of the cumulative projects.	Alternative 2 and the cumulative projects would have a regional, long-term, moderate, adverse impact on park operations and facilities. The adverse impact associated with Alternative 2, including additional demands on park operations staff, would contribute to the adverse effect of increased demand for park operations services and facilities of the cumulative projects.	Alternative 3 and the cumulative projects would have a regional, long-term, moderate, adverse impact on park operations and facilities. The adverse impact associated with Alternative 3, including additional demands on park operations staff, would contribute to the adverse effect of increased demand for park operations services and facilities of the cumulative projects.

Table II-2 (Continued)
Summary of Environmental Consequences

Alternative 1 No Action	**Alternative 2** Preferred	**Alternative 3**
HAZARDOUS MATERIALS		
Alternative 1 would have a local, long-term, minor, beneficial effect due to the continuation of remediation efforts at the site of a former gas station adjacent to Camp 4. The beneficial effects of the alternative would be somewhat offset by adverse effects associated with the small potential for an as-yet-undiscovered underground storage tank at the site to eventually leak. This alternative would have no effect on hazardous materials management in the project vicinity, and because no buildings would be renovated or demolished and no equipment would be disturbed, asbestos fibers and PCBs would not be released to the environment.	Construction activities could result in releases of hazardous materials, resulting in a moderate adverse impact to the environment. Implementation of mitigation measures, such as a spill prevention and pollution control program, preconstruction surveys, and compliance with applicable hazardous materials management regulations, would reduce the magnitude of the adverse impact to negligible to minor. Overall, Alternative 2 would have a local, long-term, negligible, adverse impact on the environment. The beneficial impact of siting new Camp 4 facilities at a remediated site would partially offset the adverse effect of potential releases of hazardous materials into the environment.	As with Alternative 2, construction activities could result in the release of hazardous materials, resulting in a moderate, adverse impact to the environment. Implementation of mitigation measures, such as a spill prevention and pollution control program, preconstruction surveys, and compliance with applicable hazardous materials management regulations, would reduce the magnitude of the adverse impact to negligible to minor. Overall, Alternative 3 would have a local, long-term, negligible, adverse impact on the environment. The beneficial impact of siting new Camp 4 facilities at a remediated site would partially offset the adverse effect of potential releases of hazardous materials into the environment.
Alternative 1 and the cumulative projects would result in a regional, long-term, negligible, adverse impact on the environment. The adverse effects associated with the use, storage, or accidental release of hazardous materials during construction of the cumulative projects would be largely offset by the beneficial effects of remediation of the former gas station site near Camp 4.	Alternative 2 and the cumulative projects would result in a regional, long-term, minor, adverse impact on the environment. Alternative 2 would negligibly contribute to the adverse effects of the cumulative projects associated with the use, storage, or accidental release of hazardous materials during construction of the cumulative projects.	Alternative 3 and the cumulative projects would result in a regional, long-term, minor, adverse impact on the environment. Alternative 3 would negligibly contribute to the adverse effects of the cumulative projects associated with the use, storage, or accidental release of hazardous materials during construction of the cumulative projects.